TWENTY-SEVENTH

ANNUAL REPORT

OF THE

SANITARY CONDITION

OF

BOOTLE,

BY THE

MEDICAL OFFICER OF HEALTH.

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Twenty-seventh Annual Report

ON THE

SANITARY CONDITION OF THE COUNTY BOROUGH OF BOOTLE.

DURING the year 1899 the Returns of the Local Registrar, Mr. W. T. Johnson, record 1809 *Births* and 1164 *Deaths* within the Borough, the natural increase of the population within the Borough being therefore 645. On comparing these numbers with those in 1898, it will be seen that there was an increase in the number of both births and deaths, viz. :—of 37 in the number of births and 59 in that of deaths, the natural increase in the past year within the Borough having been 122 less than in 1898.

POPULATION.

As a large number of new houses have been erected, and as there has been a natural increase of the population of 645, during the past year, I have calculated the statistics upon the basis of the estimated population in the middle of the year, namely 54,000. After taking every circumstance into consideration with regard to the fluctuating character of the population, I believe that a calculation of the increase of population in Bootle, by the aid of logarithms would be erroneous.

The following table shows the number of Births and Deaths *within the Borough* during the 10 years 1889-1898, and in the year 1899 :—

Years.	Births.	Deaths.	Years.	Births.	Deaths.
1889	1668	886	1894	1660	917
1890	1706	1017	1895	1823	1075
1891	1780	1165	1896	1759	1026
1892	1710	951	1897	1748	1037
1893	1828	1153	1898	1772	1005

1899 – Births 1809—Deaths 1164.

This table shows a considerable variation in the number of births and deaths during the past 11 years. The number of births during the past year has only been exceeded twice during the preceding 10 years, viz.:—in the years 1893 and 1895, when the number of births registered were 1828 and 1823 respectively. There has been a greater variation in the number of deaths, but I regret to point out that only once in the preceding 10 years has the total number of deaths exceeded that of last year, and that was in the year 1891, when the total number (with a smaller population) was 1165.

BIRTHS.

The number of Births registered in Bootle in 1899 was 1809, of which 902 were males and 907 females. Table No. 1 shows that the largest number of births were in October and November, when 170 and 162, respectively, were registered. The smallest number registered (135) was in August. The total number was 37 more than that in 1898, and the birth-rate was equal to 33·5 per 1000, and exceeding that of the 33 large towns by 3·3, and that of England and Wales by 4·3 per 1000.

DEATHS.

The number of Deaths registered in Bootle in 1899 was 1164, of which 594 were of males and 570 of females, so that the deaths of males exceeded those of females by 24. The total number exceeded that in 1898 by 159, and the *Death-rate* of persons whose deaths *were registered in Bootle* was 21·55 per 1000. As, however, 105 paupers said to belong to Bootle, died in the Walton and Mill Road Workhouses of the West Derby Union, and thus died "*outside the district,*" (principally in Walton) and 57 deaths of persons not belonging to Bootle occurred "*within the district,*" principally in the Bootle Borough Hospital and in the Corporation Hospital for Infectious Diseases, Linacre, the difference between these numbers, viz. 48, must be added to the 1164 deaths before mentioned. The death-rate therefore without this addition was 21·55, but with this addition 22·44 per 1000, the latter being 2·73 per 1000 more than in 1898. The death-rate was with this addition about 2·24 in excess of that of the average of the 33 large towns, which was 20·2, the latter being 1·2 in excess of that in 1898. The death-rate in England and Wales was 18·3 per 1000. Of the 105 paupers who died in the Workhouses, belonging to Bootle, there were admitted—1 in 1889, 1 in 1891, 1 in 1893, 2 in

1894, 3 in 1895, 2 in 1896, 8 in 1897, 20 in 1898 and 67 in 1899. It will be noticed that the number of persons who die in the Workhouses make a large addition to the total number of deaths in Bootle, and although I think there is no doubt that all these persons were originally sent from Bootle, yet I think there is some doubt if the antecedents of these people were inquired into, whether they would be found to be persons who should really be classified as belonging to Bootle, as I think it is certain that many of them are of migratory habits who come to Bootle to seek employment at the docks or elsewhere, whilst others being of the vagrant class are taken ill and admitted from Common Lodging Houses, and have really no fixed residence. On the other hand it is I think very probable that many deaths occurring in the town (not in the hospital), may have been of visitors or "persons not belonging thereto."

INFANT MORTALITY.

The deaths of children under 5 years of age within the Borough amounted to 520, and thus comprised 44·6 per cent of the total deaths. The total number was 17 over that in 1898, and the percentage about 54 less. The deaths of infants under one year was 337, this number being 8 more than that in 1898. They were 186 per 1000 of the registered births, in other words 18·6 per cent of those born died within the first year of life, a percentage of 0·3 only over that in 1898. The largest number of deaths under 5 years, and also under one year, occurred in July, when the deaths of 81 children under 5 years were registered, of whom 63 were infants under 1 year. The greatest percentage of children under 5 years who died in one month was also in July, when 68·64 per cent succumbed. By the published returns of infant mortality, measured by the proportion of deaths under one year to the registered births, I find that in the 33 large towns the average mortality was 181, and in the whole of England and Wales 163 per 1000. The infant mortality in Bootle was therefore only slightly in excess of that of the 33 large towns.

Analysis of the Causes of Deaths—In the same manner as in former years I will now review the causes of deaths registered in Bootle. I regret to have to report an increase of deaths during the past year, the total number registered in Bootle having been 1164, but with the excess of the workhouse deaths over those of the non-residents the total number amounted to 1212.

The death-rate with this addition being 22·44 per 1000, made an increase of 2·73 over that of 1898, and an increase of 2·2 over the average mortality of the 33 large towns. If, however, the mortality in Bootle without the excess of the Workhouse deaths, is compared with the mortality in the 33 large towns, it is found that the former is only 1·3 in excess of the latter. In order to show this clearly I will compare the total death-rates of Bootle in the 4 quarters of the year, with the approximate death-rates of the 33 large towns and of the whole of England and Wales :—

	Bootle.		33 Large Towns.		England and Wales.
1st Quarter	23·37	...	20·6	...	18·9
2nd ,,	17·76	...	17·5	...	16·6
3rd ,,	25·65	...	21·9	...	19·2
4th ,,	19·48	...	20·8	...	18·6

On comparing these death-rates it will be noticed that the cause of the mortality in Bootle having been larger than that in the 33 large towns will be found (as in former years) principally in the 3rd quarter, the death-rate of which exceeded that of the larger towns by 3·7, but the increased death-rate in the 1st quarter of last year also assisted in making the death-rate larger, as it exceeded that of the large towns by 2·7. The death-rate in the 2nd quarter was about the same, but that of the 4th quarter was 1·4 less than the death-rates of the larger towns in these quarters. I will now compare the infant mortality of Bootle, measured by the proportion of deaths under one year to registered births, with that of the 33 large towns, and of the whole of England and Wales, in the 4 quarters of the year :—

	Bootle.		33 Large Towns.		England and Wales.
1st Quarter	169	...	141	...	137
2nd ,,	129	..	124	...	116
3rd ,,	356	...	303	...	255
4th ,,	102	...	159	...	144
Total mean of the 4 quarters	186	...	181	...	163

By the above tabular statement it will be noticed that there was no great difference between the total infant mortality in Bootle and the large towns, but it also shows that this infant mortality in Bootle was considerably greater than that in the large towns in the first and third quarters, nearly the same in the 2nd quarter, and considerably less in the 4th quarter. The principal cause of the preponderance of infant mortality in the first quarter was the excessive mortality from diseases of the lungs and air passages, and that in the 3rd quarter was undoubtedly the large number of deaths from diarrhœa, which fatal infantile disease carried off in these three months 116 children under 5 years, 87 of which were infants under 1 year, the total infant mortality (under 5 years) from this disease during the year being 132. On comparing the total mortality in Bootle in 1899 with that of the previous year, it will be seen that there was a decrease in the number of deaths from 4 of the principal zymotic diseases in 1899, viz., a decrease of 1 from measles, 6 from typhus, 7 from enteric (or typhoid), and 7 from whooping cough. There was an increase of 2 from diphtheria, 32 from diarrhœa, and 12 from influenza. With regard to other diseases and causes of death, there was a decrease of 2 from diseases of the stomach, and of 8 from deaths through violence. On the other hand there was an increase of 14 from tubercular disease (including 5 from Phthisis), 19 from diseases of the brain and spinal marrow, 10 from diseases of the heart, 6 from diseases of the kidneys, and no less than 66 from diseases of the lungs and air passages, and of 23 from "uncertified deaths." According to the Registrar's Returns there was a decrease of 3 in the number of deaths in the Bootle Borough Hospital, and a decrease of 14 in the Corporation Hospital for Infectious Diseases. There was an increase of only 18 in the number of paupers attended by the District Medical Officer during the year, the numbers in the 4 quarters having been as follows:—1st quarter 313, 2nd quarter 207, 3rd quarter 221, 4th quarter 210; total, 951. Table number 4 gives a summary of the deaths from the various classes of diseases, including the important class of zymotic diseases, the mortality from every one of which diseases is separately enumerated, but table number 3 gives the total number of deaths from these zymotic diseases after "deducting and adding deaths from outside and inside the Borough." In accordance with the order of the Local Government Board, I will now pass on to refer to the *sanitary work accomplished during the year*, and supply information (as in former years) on each of the seven principal zymotic diseases, and give a summary of *the action taken, or which I have advised the Sanitary Authority to take to prevent the spread of these diseases.*

ZYMOTIC DISEASES.

The number of deaths from the 7 principal zymotic diseases, viz., small-pox, measles, scarlatina, whooping cough, fevers and diarrhœa (after deducting 9 deaths of persons "outside the district," viz., 2 from scarlatina, 3 from diphtheria, and 4 from enteric fever, occurring in the hospital for Infectious diseases) was 204, which number was 13 more than that in 1898. Of this number 175 were of children under 5 years. The total *zymotic death-rate* was 3·73 in the 1,000, but if the death-rate from diarrhœa (2·7) were deducted, that for the 6 other zymotics amounted only to 1·03, which death-rate was 0·4 less than the corresponding one last year. The total number of these zymotic diseases (204) was only 23·4 in excess of the average of the preceding 10 years, even after adding the large number of deaths (146) from diarrhœa. The number of infectious or contagious diseases notified to me during the year was 364, which number was 123 less than that in the preceding year, and 133 less than in 1897. The diseases notified were as follows :—Scarlatina 198, diphtheria 36, membranous croup 9, typhus fever 1, enteric fever 77, puerperal fever 3, erysipelas 40. The comparison of the death-rates from these diseases in Bootle with those in the 33 large towns and in England and Wales was as follows :—

	Bootle.	33 Large Towns.	England and Wales.
Small-pox	—	—	—
Measles	0·11	0·46	
Scarlatina	0·18	0.13	
Diphtheria	0·18	0·40	
Whooping Cough	0·38	0·39	
Fevers, Enteric	0·18	0·22	
Diarrhœa	2·70	1·21	
Totals	3·73	2·81	2·19

By the above tabular statement it will be seen that the total death-rate in Bootle last year was 0·92 in excess of that in the 33 large towns, and that this excess was entirely due to the large death-rate from diarrhœa; in fact, if the death-rate from diarrhœa is deducted from the total death-rates of Bootle and large towns, it will be found that the total death-rates of the other 6 zymotics was actually 0·57 less in Bootle than that of the other 6 zymotics in the large towns. By the Local Government Board's Table B, it will be seen that of the 364 cases notified, 99 were from Derby Ward, 167 from Knowsley Ward, and 98 from Stanley Ward ; therefore the notifications from Knowsley Ward exceeded those from Derby and Stanley Wards by 68 and 69 respectively, whilst the notifications from Derby and Stanley wards were almost exactly the same, the preponderance of notifications from Knowsley Ward being even more marked last year than in 1898. The number of deaths from these wards in the hospital were 3 from Derby Ward (2 scarlatina and 1 enteric), 9 from Knowsley Ward (5 scarlatina, 4 enteric), 3 from Stanley Ward (1 scarlatina, 2 enteric). Besides these deaths there were 3 deaths in hospital from other diseases said to be wrongly notified. Deaths from infectious diseases in hospital, 15. The number of deaths of persons from these notifiable zymotic diseases that occurred in their homes was as follows:—Derby Ward 4, Knowsley Ward 6, Stanley Ward 6—Total 16. The 4 in Derby Ward were from diphtheria; the 6 in Knowsley Ward were 1 from scarlatina, 3 from diphtheria, and 2 from enteric; the 6 in Stanley Ward were 1 from scarlatina, 3 from diphtheria, 1 from typhus (doubtful), and 1 from enteric. It will be noticed that there was no death from diphtheria of Bootle persons in the hospital. The total number of deaths of Bootle persons from these diseases, both in their homes and in hospital, was therefore as follows:—Derby Ward 7, Knowsley Ward 15, Stanley Ward 9—Total 31. The number of deaths in the Linacre Hospital from the out-townships was 9, viz:—5 from Waterloo and Seaforth, 2 from Litherland, 1 from Crosby, and 1 from Sefton, being a decrease of 5 from the out-townships.

HOSPITAL FOR INFECTIOUS DISEASES.

This hospital is situated in an isolated position in Linacre, and the number of cases treated in it during the year was 266, showing a decrease of 127 cases when compared with the previous year. Of the total number 187 were of residents and 79 of non-residents. There was thus a *decrease* of 90 cases from Bootle, and 37 from the out-townships. Of the residents admitted and treated in the hospital, 50 were from Derby Ward, 96 from Knowsley Ward, and 41 from Stanley Ward. Of the non-residents, 37 were from Waterloo and Seaforth, 17 from Litherland, 24 from Crosby, and 1 from Sefton. The decrease of cases from Derby Ward was 31, that from Knowsley Ward 9 only, but that from Stanley Ward 50. The decrease of cases therefore was chiefly from Derby and Stanley Wards. It will be seen by the Local Government Board's Table A, that the total number of deaths in the hospital (including the 3 deaths from "other diseases"), was 27, which number was 14 less than the total number of deaths in 1898. Of the total deaths in 1899 (including those from other diseases), 17 were from Bootle, and 10 from the out-townships, giving a total death-rate of 10·15 per cent. The percentage of deaths from the Bootle cases was about 9 per cent, and that from the out-townships 12·6 per cent. The percentage of deaths of the same class of notifiable Bootle cases treated at the patients' homes was about 9·7, so that the latter exceeded the former by 0·7 per cent. There is no doubt the advantages of this hospital are very great, as the isolation it affords must tend very largely to prevent the spread of the infectious cases admitted. It is also very satisfactory to note the willing manner in which, as a rule, parents and relatives of patients permit their children and other members of their families to become inmates of the hospital, as it proves the appreciation of the efficient manner in which the patients are treated. The Health Committee I find have determined to provide forthwith additional accommodation for the nursing staff by enlarging the administrative block of the hospital, and also to erect a Porter's Lodge and a Patients' Discharge Block at an estimated cost of £2,050. I may here state that the Medical Superintendent, Dr. F. Reynolds, having resigned the appointment in order to commence private practice, Dr. J. Bradley Hughes has been appointed to the post thus vacated and commenced his duties in January, 1900.

DISINFECTING APPARATUS.

During the year the number of articles disinfected at the station in Linacre by the apparatus known as "Washington Lyons Patent" was 5,288, this being a decrease of 2,722. The larger number of articles disinfected in 1898 was principally owing to the epidemic of typhus in that year. The following is a list of the various articles disinfected in 1899:—Beds 338, mattresses 304, sheets 534, blankets 550, quilts 552, bolsters 349, pillows 683, wearing apparel 1,794, other articles 184—Total 5,288. The apparatus is a very efficient one, furnishing a heat of 250° by superheated steam. A man is specially appointed to take charge of it and separate vans are used for conveyance of articles to and from the station. When the articles are exceptionally foul, or have been used by patients suffering from very infectious diseases, they are destroyed and replaced, or allowed for at the cost of the Sanitary Authority in conformity with the provisions of the Public Health Act. In the same manner as in previous years, sulphurous gas has been used for disinfecting houses and rooms, and "Daley's Disinfecting Box" has been used for disinfecting infected persons *in their own homes*. Disinfectants also were largely used around infected premises, foul middens, drains, &c.

In accordance with my usual custom I shall now proceed to the consideration of the seven principal zymotic diseases, and in the observations which I shall make respecting them I shall state all that *could be discovered with reference to the origin and extension of these diseases, together with the advice given and the measures taken to prevent their spread.* The first zymotic I will now refer to, and remark on, is

SMALL POX.

I am glad to be able to report that no death has occurred and not a single notification has been received of this very infectious and dreaded zymotic during the past year. Contrary, I think, to almost universal expectation the passing of the Vaccination Act of 1898, has had results, which every one who favoured vaccination must regard as very satisfactory. At a meeting of public vaccinators held on the 25th November last, the President of the Local Government Board (The Right Hon. Henry Chaplin, M.P.) informed the members of the Association that "up to the end of June last 77,000 more vaccinations had been done in the preceding six months than in the last six months before the passing of the Act, which was at the rate of more than 150,000 for the whole year. Since June there were no complete returns, but inspectors reported no falling off, with one single exception." In several Unions mentioned, the vaccinations had been twice or even three times as numerous as in the corresponding periods of the preceding year. Mr. Chaplin believed the Act of 1898 was proving a very distinct and considerable success and that happily even the admission of the "conscientious objector" had been powerless to spoil it and he suggested "the starting of a body to explode the fallacies of that small body of opponents, who disseminated all manner of stuff in town and village, without there being anything to counteract it, so that it had a very bad effect on the poorer and less informed of the inhabitants." Unfortunately there had lately been an outbreak of small-pox at Hull, which has led to greatly increased vaccination and re-vaccination. The result of this epidemic again proves conclusively the efficacy of vaccination. It has been an epidemic of considerable gravity, for since the outbreak and up to the beginning of December, 588 cases had been admitted into hospital. Of those 504 had been vaccinated and 84 showed no sign of vaccination, but it was found that the deaths of vaccinated cases yielded a death-rate of 9·5 per cent, whilst that of those showing no evidence of vaccination was 50 per cent (or one half). In consequence of this epidemic it is computed that 60,000 persons availed themselves of its protection.

MEASLES.

It is satisfactory to note that there were only 6 fatal cases of measles (one less than in 1898) during the past year. All the cases were of children under 5 years of age, and the death-rate from this zymotic was only 0·11 per 1000, that of the 33 large towns being 0·46 per 1000, or more than 4 times greater. As measles is not notifiable in this Borough, it is impossible to state accurately the months in which it was most prevalent, but the School Board Authorities reported to me a number of cases in the first quarter of the year, about February and March. Of the 6 fatal cases there occurred 1 in February, 2 in March, and 1 in each of the 3 months July, August and November. The annual average of the 10 preceding years was 18·1 or three times the number in 1899. As measles when epidemic is often a very serious disease, having caused more deaths in recent years than small-pox, scarlatina, diphtheria or fevers, I think I cannot unduly emphasize this important fact. In Sheffield 177 deaths from this zymotic occurred in 1898, and of this number no less than 172 were of children under 5 years, the average number of deaths in previous years having been as large as 200. As the disease is so fatal in very young children, it is evident that the closing of the infant department of our public elementary schools is often of great value, when measles is epidemic or threatens to become epidemic, and as the disease is infectious even before the rash appears, I think that the greatest care should be taken by the School Board Authorities that no child from an infected house should be allowed to enter a school. Another instance of the serious character of this zymotic is noticed in last year's Annual Report of the Medical Officer of Health for Crewe. Speaking of a recent epidemic of measles in that town, Dr Meredith Young observes, " a most noticeable fact, and one alluded to previously is that this one disease, which parents usually think so trivial, was the cause of *nearly twice as many deaths as those which occurred from the eight notifiable dangerous infectious diseases taken together.*"

SCARLATINA.

The number of deaths from scarlatina during the year was 10, after deducting two deaths from the out-townships, and the number of deaths was the same as that in last year. The number of notifications of this disease was 198, a decrease of 65 when compared with the number notified in 1898.

The percentage of deaths to notifications was a little over 5, and a percentage of cases removed to hospital was 62·6, or about one per cent more than in 1898, which is I think very satisfactory. Table No. 2 shows the number of notifications of scarlatina in each month of the year, and Table No. 4 gives the number of deaths (including those from the out-townships) in the months in which fatal cases occurred. It will be noticed that no fatal case occurred in February, March, April, June, August and September (6 months). The number of cases of scarlatina admitted into hospital from Bootle was 124 in 1899, and that from the out-townships 52, making a total of 176. The number of cases admitted from Bootle in 1898 was 162, and that from the out-townships 76, making a total of 238. It will be noticed that both of the totals in 1899 were less than those in 1898. The number of deaths of Bootle cases was 10·9 (or nearly 11) less than the average of the preceding 10 years, and the death-rate was 0·18, which was only 0·05 in excess of that of the large towns, which was 0·13. It will be noticed that scarlatina was more or less prevalent throughout the year, but that the largest number of cases notified was in the fourth quarter, when 36, 21 and 22 cases respectively were notified. In two instances scarlatina was notified in milk houses, but as the cases were removed as soon as possible to hospital, no spread of the disease occurred in consequence. The isolation afforded in the hospital therefore is not only of great advantage to the patients but also invaluable to the general public. It is of great importance to poor people in cottage property as it is almost impossible to prevent the spread of scarlatina in this class of property, and when a case occurs in a cottage where a parturient woman resides it is of great importance that such a case should be removed as soon as possible, for the cottage can then be stoved and the bedding, &c. disinfected at once, and by so doing in all probability the life of the mother will be saved. The saving of expense to poor people is also very considerable. It is also of great importance to the general public, particularly in those cases where it spreads to a milkhouse, or to an inmate of any large business establishment.

DIPHTHERIA.

The number of notifications of this disease was 36, and the number of deaths 10, after deducting 2 fatal cases from Litherland, and 1 from Waterloo in hospital. The notifications were more than double those in 1898, and the number of deaths two more than in 1898. The death-rate was 0·18 and was

0·04 in excess of that of 1898, but was 0·22 less than the average of the 33 large towns. Of Bootle cases 11 were treated in hospital with no fatal result, and of the remaining 25 cases treated outside the hospital 10 died. Of the fatal Bootle cases all excepting one were of children under 5 years.

MEMBRANOUS CROUP.

The number of cases notified as croup was 9, or 5 more than that of 1898. One was treated in hospital and recovered, and of the 8 remaining cases treated outside 4 died. This disease is now often classified with diphtheria, and if the deaths from this disease are added to those of diphtheria, the total death-rate from the two diseases would be 0·25, which number even then would be 0·15 less than the death-rate stated for "diphtheria" in the large towns.

WHOOPING COUGH.

The number of deaths from whooping cough was 21, which number was 7 less than that in 1898, all the deaths being of children under 5 years of age. The disease is specially fatal in children under 1 and 2 years of age, and there is no doubt that the majority of deaths are due to complications such as pneumonia and bronchitis. The total number of deaths was 4 less than the average of the 10 preceding years, and the death-rate was 0·38 per 1000, which was exactly the same as that of the 33 large towns. The disease was more or less prevalent during the year, but no deaths occurred from it in March, April, August and November. It is a disease which parents of the poorer classes regard as almost necessary and unimportant amongst children, and as it is very infectious and children are often sent to school from infected houses, it naturally follows that the disease when started spreads rapidly. With the exception of diarrhœa it caused more deaths in Bootle during the past year than any of the zymotic diseases.

CONTINUED FEVERS.

Under this heading are included typhus fever, enteric (or typhoid) fever, and simple continued fever. I shall make no remark on the last-named fever, as no case of it was notified, and no death from it was registered.

Typhus Fever—One case of this very infectious fever was notified in June, but I think it was a very doubtful one. The patient was a child 10 years of age, who, after seizure, died very rapidly, so that a diagnosis could not accurately be made. No fresh case of fever occurred in the same house afterwards.

Enteric (or Typhoid) Fever—The total number of enteric cases notified during the year was 77, which number was 47 less than that in 1898. It is very satisfactory to note that there has been a steady decline of cases notified of this fever for the last 3 years. The number notified in 1897 was 154, in 1898 124, and in 1899 only 77. I am strongly in hopes that this decline has been due to the large number of conversions of privy-middens into water-closets, which has been going on during these years. The total number of deaths registered in Bootle from this disease was 14, but 4 of these were of persons from the out-townships who died in the Linacre Hospital, so that the total number of deaths of Bootle persons from this disease was 10, *or 7 less than in 1898*. Table No. 2 shows the number of cases notified in each month of the year, but the largest numbers notified were in August, September, October and November, when 9, 13, 10, and 17 respectively, were notified. The number of deaths from this fever in the Isolation Hospital of patients sent in from the out-townships was 4, which number was just one half that from the out-townships in 1898, of these 4 deaths, 2 were from Seaforth, 1 from Crosby, and 1 from Sefton. Excluding these 4 deaths, the number of Bootle persons dying from this disease was 1 in April, 1 in May, 1 in July (an infant), 1 in August, 1 in September, 2 in October, 2 in November, and 1 in December. It will be noticed that a death occurred in every month of the 2nd, 3rd, and 4th quarters, excepting in June, and that 2 deaths occurred in October and November. For a number of years past the disease, as a rule, has been most prevalent in the autumnal months, but last year it would appear that the disease was slightly more prevalent in November. The total number of deaths of Bootle persons was 11·7 less than the average of the preceding 10 years, which is a very satisfactory fact to note. The death-rate of Enteric Fever in Bootle was 0·18 per 1,000, and was thus 0·13 less than it was in 1898, and was 0·04 less than that of the large towns. The number of enteric cases admitted into hospital from Bootle was 51, that from the out-townships 18, 5 of which were from the township of Waterloo and Seaforth, 6 from Litherland, and 7 from Crosby. Thus the total number of enteric cases admitted was 69, or 44 less than in 1898. The number of cases admitted from Bootle (51) was 23 less and the number from the out-townships (18) was 21 less than in 1898. The total number of deaths from this fever in hospital was 11, 7 of which were of residents and 4 of non-residents, the total number (11) being not quite 16 per cent of the entire enteric cases admitted, which number was very nearly the same as in 1898. The percentage of deaths from all notified cases from Bootle (77) was 13, and was thus 3 per cent less than the whole of the cases (69) admitted into hospital. The percentage of the 10 deaths of Bootle persons to the 51 Bootle cases treated in hospital was 19·6. If the 7 deaths of Bootle persons dying in hospital are deducted from the total number of deaths (10) of Bootle persons dying from this fever, this will give a difference of 3 persons dying out of the 26 persons treated outside the hospital, and the percentage of these 3 deaths to the 26 cases treated outside the hospital is therefore 11·5 or 8·1 per cent less than those treated in hospital. This lessened mortality outside the hospital can only be accounted for by the small number of cases treated outside the hospital, and the more serious nature of the cases admitted. Of the 77 cases of enteric fever that occurred in Bootle, 18 were from Derby Ward, 43 from Knowsley Ward, and 16 from Stanley Ward. Of these cases 51 were removed to hospital, viz. :—8 from Derby Ward, 32 from Knowsley Ward, and 11 from Stanley Ward, and of the total deaths of Bootle persons (10) both in hospital and outside, 1 was from Derby Ward, 6 from Knowsley Ward, and 3 from Stanley Ward. It will therefore be seen that both the number of notifications and the number of deaths therefrom in Knowsley Ward far exceeded those from Derby and Stanley Wards. I think it is a notable fact (as will be seen in Table No. 3) that ever since the year 1896 the number of deaths in Bootle from enteric fever has been gradually decreasing, but I think this decrease has been particularly marked during the past year, not only with regard to deaths, but even more so if possible, with regard to notifications. That the number of deaths from enteric fever in Bootle has been reduced to 10, and the number of notifications to 77, is certainly a fact worthy of record. I now have good hopes that the vigorous crusade instituted by the Health Committee against the obnoxious privy-middens has been the principal cause to bring about this desirable result. During the past year the Health Committee appointed a Sanitary Inspector especially to look after these conversions, and I am glad to report that no less than 936 of these receptacles of filth have been converted into water-closets. No one I think could reasonably expect that a diminution of enteric cases would *immediately* follow these conversions, as the soil around these middens must have been more or less saturated with filth, in which the typhoid bacillus can live and multiply, therefore for the first year after the conversions began I could not observe any marked improvement, but I do hope now that a steady improvement is taking place. I submit therefore, that to make this improvement a permanent one, endeavours should be taken to obtain the co-operation of the owners of cottage property in properly paving the whole of the yards and passages with an impermeable pavement in which no slop water or other refuse matter can lodge, and thus prevent the penetration of micro-organisms in the soil beneath. There is strong evidence to show that the lodgment of foul liquids of this kind in the interstices of a broken yard surface constitutes a kind of breeding-soil for typhoid germs, and therefore the yard surfaces ought always to be well looked after and kept in a state of perfect repair. The conversions of these privy-middens are still going on, and I hope that at least an equal number will be converted in the present year as in the last. I may here mention an interesting report which has lately appeared in the "British Medical Journal" (January 6th), by Dr. Joseph Priestley, Medical Officer of Health, to his Authority upon an exceptional increase in the number of cases of typhoid fever in the parish of Lambeth. He has traced the source and spread of three localised outbreaks and considers the facts noteworthy from an etiological point of view, as showing that in all probability typhoid fever spreads by *actual contact* oftener than is generally supposed. Dr. Priestley divides the cases into three groups, each of which was infected by a single person—in the 1st group 3 persons were infected, in the 2nd group 5 persons were infected, and in the 3rd group 6 persons were infected. "Careful inquiries failed to trace any of the infection to milk, water, or shell-fish, and by a process of exclusion Dr. Priestley is driven to regard the spread of the disease as due to direct contact from person to person, or to indirect contact through infected clothes, food, &c. In conclusion, Dr. Priestley pays a just tribute to the assistance which the *Widal re-action* affords in making a prompt diagnosis of the disease. It is the experience of all Medical Officers of Health that a large percentage of the notifications of typhoid fever do not reach them until after the patient has been ill for several weeks. It is these cases which remain unrecognised often for long periods which are mainly responsible for spreading the disease, and where gratuitous means are provided to medical men for clearing up the nature of such doubtful cases, as at Lambeth and elsewhere, a serious responsibilty attaches to those who do not avail themselves of it."

DIARRHŒA.

Once again I have to record a fatal epidemic of this most serious infantile disease, and as the Registrar General has now ordered the inclusion of cases registered as "gastro-enteritis" under the common head of diarrhœa (there being really no practical difference) I have this year included these cases under this heading, in the same manner as I did in 1898. Although the mortality from enteric fever has certainly been less for the last three years, the mortality from this very serious disease has shown no sign of diminution, but has actually increased. It should however be borne in mind that the microbe of diarrhœa resides in the *surface* soil, whereas that of enteric fever resides in greater depths, and is caused by the pollution of the subsoil mostly by defective privy-middens and drains. Diarrhœa in the past year, as is nearly always the case, began to be epidemic in the middle or latter end of June, when 5 deaths were registered from it. The mortality rapidly increased in July, when 39 deaths occurred, and was at its height in August, when no less than 57 deaths were registered, 10 deaths occurring in one day (23rd August). It began to decline in September, when 31 deaths occurred. The disease then practically died out, for only 4 deaths from it were registered in the fourth quarter. It is really always epidemic in Bootle in the third quarter, when it commences as soon as the earth temperature 4 feet below the surface has reached 56°. The total number of deaths from this disease last year was 146, an increase of 32 over the number in 1898, but an increase of 84·8 on the average of the preceding 10 years. In considering these numbers however, the large increase of population in Bootle during the last 11 years must be borne in mind. Of the total number of deaths 132 were of children under 5 years, and of these 132 children 101 were infants under 1 year, 28 of infants aged 1 year and under 2 years, and 3 of children aged 2 and under 5 years. The zymotic death-rate was 2·7 per 1000, which was two-thirds of the total zymotic death-rate and 0·56 in excess of last year, and 1·21 in excess of the 33 large towns. It is thus apparent that this disease alone has added 2·7 to the total death-rate, and this large mortality still goes on, year after year, without showing any material improvement, and I think every effort ought to be made to lessen this mortality, even although this should involve some considerable expense. I have prepared and append statistics, pointing out the localities where one or more fatal cases of diarrhœa have occurred during the year. The causes of infant diarrhœa mortality are multifarious, but it is evident that many of the causes of this disease are due to the pollution of air, water and food, with some product or products of the decomposition of organic matter during very hot weather. But while this is the case there is no doubt the essential cause, "the unconditional invariable antecedent" (Ballard) of epidemic diarrhœa is a micro-organism, though requiring for its activity certain conditions of temperature, rainfall and soil. It is very fatal amongst the low labouring class of population, which is not surprising when one considers the too frequent filthy state of their cottages, and their utter ignorance as to treatment of this disease; but this is by no means always the case, as the infants of parents in better circumstances are often attacked. The mortality is as a rule, lower in localities where the removal of house refuse is efficient and where the scavenging of the streets is well looked after. Dr Ballard had stated that on loose porous soils, diarrhœal mortality was apt to be high, and as the soil of Bootle is of this character, it is a fact to be remembered. There is no doubt there is a direct relation between the temperature and rainfall and the prevalence of diarrhœa especially in the third quarter of the year. A high temperature and scanty rainfall during the summer and autumn is invariably followed by an outbreak of diarrhœa, the intensity of which is determined by the sanitary condition of a town. The influence of heavy rain, and of well flushing the streets and passages by hose, in decreasing the mortality, is evidence of its connection with superficial pollution. "Diarrhœa, like enteric fever, is communicable, multiple cases being frequently observed in the same family, and there is no doubt it is often caused by the infection of food by means of street dust entering houses, and the part played by milk in the production of this disease is rather that of a vehicle than of a primary cause." Bearing in mind, then, all these facts, and considering the serious nature of this disease, I must again repeat the opinion I expressed in my last report, viz.: that "not only should the yards, passages and soil around dwellings have an impermeable pavement to prevent organic pollution, but every *house* should be provided with an impermeable basement to prevent *ground air* entering the basements of houses, as the aspirating power of the warm air of the house can draw up air out of the ground, and if this ground air is fouled either from defective drains, or from more or less *polluted* soils, it may contaminate the house and everything in it, including food. *I believe therefore that the basement of every house and cottage should be built on a bed of cement, as without much expense this would exclude both ground air and water, and make the air of the house or cottage much purer, drier, and more safe for the inmates.*"

TABLE SHEWING THE COMMENCEMENT, HEIGHT AND DECLINE OF EPIDEMIC DIARRHŒA, DURING THE YEAR, 1899.

Date of Death.	Locality.	Ward.	Under 1 year.	One & under 2 years.	Two & under 5 years.	Five years & upwards
Jan. 3	Balliol Terrace	Stanley	2 m.	—	—	—
,, 18		Knowsley	3 m.	—	—	—
Feb. 7	Merton Road	Derby	—	—	—	78
,, 20	Oak Street	Derby	2 m.	—	—	—
Mar. 7	Burns Street	Knowsley	1 m.	—	—	—
,, 10	Beatrice Street	Stanley	3½ m.	—	—	—
,, 27	Viola Street	Stanley	8 m.	—	—	—
May 6	Oregon Street	Derby	10 m.	—	—	—
,, 8	Chesnut Grove	Knowsley	—	—	—	60
,, 14	Hood Street	Knowsley	2½ m.	—	—	—
June 15	Garden Lane	Derby	8 m.	—	—	—
,, 21	Bangor Street	Knowsley	4 m.	—	—	—
,, 22	Canal Street	Stanley	—	18 m.	—	—
,, 25	Conway Street	Knowsley	3 m.	—	—	—
,, 27	Florida Street	Derby	4 m.	—	—	—
July 1	Canal Street	Stanley	5 m.	—	—	—
,, 2	Derby Road	Stanley	2 m.	—	—	—
,, 4	Bedford Road	Stanley	—	12 m.	—	—
,, 5	Derby Road	Stanley	9 m.	—	—	—
,, 6	Surrey Street	Derby	—	12 m.	—	—
,, 7	Boreland Street	Knowsley	3 m.	—	—	—
,, 8	Windsor Place	Stanley	2 m.	—	—	—
,, 8	Stanley Road	Stanley	10 m.	—	—	—
,, 9	Hawthorne Road	Derby	—	—	—	22
,, 9	Bank Road	Knowsley	6 m.	—	—	—
,, 10	Norfolk Street	Derby	5 m.	—	—	—
,, 13	Audley Street	Knowsley	6 m.	—	—	—
,, 16	Clare Road	Derby	4 m.	—	—	—
,, 18	Conway Street	Knowsley	—	12 m.	—	—
,, 18	Chesnut Grove	Knowsley	11 dys.	—	—	—
,, 19	Linacre Lane	Derby	2 m.	—	—	—
,, 19	William Henry Street	Stanley	—	12 m.	—	—
,, 19	Flint Street	Knowsley	6 m.	—	—	—
,, 19	Brookhill Road	Derby	11 m.	—	—	—
,, 20	Derby Road	Stanley	9 m.	—	—	—
,, 20	Moore Street	Knowsley	6 m.	—	—	—
		Carried forward	28	6	—	3

Date of Death.	Locality.	Ward.	Under 1 year	One & under 2 years.	Two & under 5 years.	Five years & upwards.
		Brought forward	28	6	—	3
July 20	Rimrose Road	Knowsley	2 m.	—	—	—
,, 21	New Street	Derby	7 m.	—	—	—
,, 21	Olivia Street	Stanley	2 m.	—	—	—
,, 22	Sandy Lane	Stanley	11 m.	—	—	—
,, 22	Miller's Bridge	Stanley	4 m.	—	—	—
,, 23	Spring Grove	Derby	11 m.	—	—	—
,, 24	Clifford Street	Knowsley	8 m.	—	—	—
,, 25	Aber Street	Knowsley	3 m.	—	—	—
,, 26	Malcolm Street	Stanley	4 m.	—	—	—
,, 27	Seaforth Street	Stanley	—	20 m.	—	—
,, 27	Litherland Road	Derby	9 m.	—	—	—
,, 28	Beech Street	Derby	5 m.	—	—	—
,, 29	Bala Street	Knowsley	1 m.	—	—	—
,, 29	Derby Road	Stanley	2 m.	—	—	—
,, 29	Aber Street	Knowsley	6 m.	—	—	—
,, 30	Lyons Street	Stanley	11 m.	—	—	—
,, 30	Gloucester Road	Derby	4 m.	—	—	—
,, 31	Viola Street	Stanley	9 m.	—	—	—
Aug. 1	Malcolm Street	Stanley	5 m.	—	—	—
,, 1	Hornby Road	Derby	8 m.	—	—	—
,, 3	Denbigh Street	Knowsley	11 m.	—	—	—
,, 3	Howe Street	Stanley	—	12 m.	—	—
,, 5	Audley Street	Knowsley	9 m.	—	—	—
,, 5	Salisbury Road	Knowsley	8 m.	—	—	—
,, 7	Audley Street	Knowsley	7 m.	—	—	—
,, 8	Spring Grove	Derby	11 wks.	—	—	—
,, 9	Mann Street	Stanley	—	—	—	11
,, 12	Audley Street	Knowsley	9 m.	—	—	—
,, 13	Canal Street	Stanley	—	—	—	53
,, 13	Hood Street	Knowsley	4 m.	—	—	—
,, 14	Bulwer Street	Knowsley	11 m.	—	—	—
,, 14	Garfield Street	Derby	7 wks.	—	—	—
,, 14	Church Street	Stanley	3 m.	—	—	—
,, 15	Holywell Street	Knowsley	3 m.	—	—	—
,, 15	Knowsley Road	Knowsley	4 m.	—	—	—
,, 15	Armstrong Street	Knowsley	—	19 m.	—	—
,, 16	Audley Street	Knowsley	—	18 m.	—	—
,, 17	Gloucester Road	Derby	4 m.	—	—	—
,, 18	Cranworth Street	Knowsley	—	—	—	64
		Carried forward	60	10	—	6

Date of Death.	Locality.	Ward.	Under 1 year.	One & under 2 years.	Two & under 5 years.	Five years & upwards.
		Brought forward	60	10	—	6
Aug. 19………	Olivia Street………………	Stanley………	10 wks.	—	—	—
,, 19………	Sheridan Place……………	Stanley………	4 m.	—	—	—
,, 19………	Brasenose Road… ………	Stanley………	4 m.	—	—	—
,, 20………	Stanley Road………………	Derby………..	14 wks.	—	—	—
,, 20………	Matthew Street…………	Stanley………	—	12 m.	—	—
,, 20………	Bostock Street……………	Stanley………	—	13 m.	—	—
,, 20………	Gray Street…………………	Knowsley ….	5 m.	—	—	—
,, 21……. .	Gloucester Road………..	Derby………..	—	20 m.	—	—
,, 21………	Aber Street……….. ……	Knowsley……	—	—	3½	—
,, 22………	Clifford Street…… ……..	Knowsley……	—	—	—	52
,, 22………	Hooton Place……………	Knowsley……	11 m.	—	—	—
,, 23………	Malcolm Street……. …..	Stanley………	6 m.	—	—	—
,, 23………	Campbell Street…………	Knowsley……	11 m.	—	—	—
,, 23… …..	Orlando Street . …………	Stanley………	8 m.	—	—	—
,, 23………	William Henry Street…..	Stanley………	5 m.	—	—	—
,, 23.. ……	Holywell Street…………	Knowsley …..	—	12 m.	—	—
,, 23………	Holywell Street…………	Knowsley……	14 wks.	—	—	—
,, 23………	Holywell Street………. ..	Knowsley……	—	14 m.	—	—
,, 23………	Pine Grove………… ……	Derby………..	—	22 m.	—	—
,, 23………	Essex Street . ………….	Derby………..	—	14 m.	—	—
,, 23 ……..	Stanley Road…………….	Derby………..	8 m.	—	—	—
,, 24………	Sidney Road… ………….	Derby….. …..	4 m.	—	—	—
,, 24………	Hawthorne Road………..	Derby………..	5 m.	—	—	—
,, 25………	Campbell Street…………	Knowsley……	—	12 m.	—	—
,, 25………	Akenside Street…………	Knowsley……	8 m.	—	—	—
,, 25… ….	Audley Street… ……….	Knowsley……	6 m.	—	—	—
,, 25………	Akenside Street…………	Knowsley……	2 m.	—	—	—
,, 26………	Washington Street… …..	Derby………..	—	—	3	—
,, 27 ……..	Stanley Road……. ……..	Derby ……….	1 m.	—	—	—
,, 28…… ..	Boreland Street…………..	Knowsley……	3 m.	—	—	—
,, 29………	Denbigh Street…………..	Knowsley.. …	9 m.	—	—	—
,, 29 . ……	Derby Road………………	Stanley.. ……	—	13 m.	—	—
,, 29………	Bala Street……………….	Knowsley……	1 m.	—	—	—
,, 30………	Talbot Street…………….	Knowsley……	7 m.	—	—	—
,, 30………	William Henry Street…..	Stanley………	—	16 m.	—	—
,, 31.. ……	Brookhill Road………….	Derby………..	—	12 m.	—	—
Sept. 1………	Jersey Street…………….	Derby………..	9 m.	—	—	—
,, 2………	Stafford Street… ……….	Knowsley……	—	12 m.	—	—
,, 2………	Vermont Street……. …..	Derby………..	—	—	—	64
,, 3…… ..	Moore Street.. ………….	Knowsley……	3 m.	—	—	—
		Carried forward	84	22	2	8

Date of Death.		Locality.	Ward.	Under 1 year.	One & under 2 years.	Two & under 5 years	Five years & upwards.
			Brought forward	84	22	2	8
Sept.	3........	Pleasant Grove........... ...	Stanley.........	—	19 m.	—	—
,,	3.........	Canal Street...........	Stanley.........	3 m.	—	—	—
,,	4...	Lyons Street.................	Stanley.........	—	18	—	—
,,	4.........	Vermont Street...........	Derby...........	10 m.	—	—	—
,,	6.........	Salisbury Road......	Knowsley......	—	—	4	—
,,	7.........	Blackburn Grove...........	Knowsley......	7 m.	—	—	—
,,	7.........	Beech Street..................	Derby...........	6 m.	—	—	—
,,	9.........	Lyons Street..................	Stanley.........	8 m.	—	—	—
,,	10.........	Olivia Street...........	Stanley...... ..	—	13 m.	—	—
,,	12.........	Byron Street.....	Knowsley......	—	—	—	15
,,	12.........	Brasenose Road.............	Stanley.........	10 m.	—	—	—
,,	12.........	Shelley Street................	Knowsley......	3 m.	—	—	—
,,	12.........	Church View..........	Stanley.........	7 m.	—	—	—
,,	13.........	Miranda Road.......... ...	Stanley.........	—	13	—	—
,,	13.........	Cornwall Street............	Derby...........	8 m.	—	—	—
,,	13.........	Southey Street...	Knowsley......	8 m.	—	—	—
,,	16.........	Berry Street..	Stanley.........	—	—	—	68
,,	19.........	Bulwer Street.......	Knowsley......	—	16 m.	—	—
,,	20.........	Stanley Road................	Stanley.........	—	—	—	47
,,	20.........	Percy Street..................	Knowsley......	—	—	—	69
,,	21	Armstrong Street..........	Knowsley......	1 m.	—	—	—
,,	21.........	Brasenose Road.............	Stanley..	—	16 m.	—	—
,,	22.........	Akenside Street.............	Knowsley......	10 m.	—	—	—
,,	22.........	Gloucester Road...........	Derby...........	2 m.	—	—	—
,,	23.........	Hawthorne Road...........	Derby...........	—	—	—	60
,,	27.........	Hood Street..................	Knowsley......	4½ m.	—	—	—
,,	28.........	Lyons Street.................	Stanley...... ..	4 m.	—	—	—
Oct.	8	Jersey Street.................	Derby.....	—	13 m.	—	—
,,	13.........	Waterworks Street..	Derby...........	—	—	—	5
,,	15.........	Keble Road............... ...	Stanley.........	3 m.	—	—	—
Dec.	23.........	Surrey Street	Derby...........	9 m.	—	—	—
				101	28	3	14

Total 146.

SUMMARY.

Ward.	Under 1 year.	One & under 2 years.	Two & under 5 years	Five & upwards.	Total.
Derby........	28	6	1	5	40
Knowsley...	43	8	2	5	58
Stanley......	30	14	—	4	48
	101	28	3	14	146

LOCALITIES IN WHICH ONE OR MORE DEATHS FROM DIARRHŒA HAVE OCCURRED DURING THE YEAR, 1899.

DERBY WARD.	
Garden Lane	1
Florida Street	1
Surrey Street	2
Hawthorne Road	3
Clare Road	1
Oak Street	1
Norfolk Street	1
Linacre Lane	1
Brookfield Road	2
New Street	1
Litherland Road	1
Merton Road	1
Spring Grove	2
Beech Street	2
Gloucester Road	4
Hornby Road	1
Garfield Street	1
Stanley Road	3
Sidney Road	1
Pine Grove	1
Essex Street	1
Oregon Street	1
Washington Street	1
Jersey Street	2
Vermont Street	2
Cornwall Street	1
Waterworks Street	1
Total	40

STANLEY WARD.	
Canal Street	4
Derby Road	5
Bedford Road	1
Windsor Place	1
Stanley Road	2
William Henry Street	3
Sandy Lane	1
Olivia Street	3
Miller's Bridge	1
Balliol Terrace	1
Malcolm Street	3
Seaforth Street	1
Lyons Street	4
Viola Street	2
Howe Street	1
Mann Street	1
Church Street	1
Brasenose Road	3
Bostock Street	1
Matthew Street	1
Beatrice Street	1
Sheridan Place	1
Orlando Street	1
Pleasant Grove	1
Miranda Road	1
Keble Road	1
Church View	1
Berry Street	1
Total	48

KNOWSLEY WARD.	
Bangor Street	1
Conway Street	2
Boreland Street	2
Bank Road	1
Audley Street	6
Chesnut Grove	2
Moore Street	2
Rimrose Road	1
Flint Street	1
Clifford Street	2
Aber Street	3
Bala Street	2
Denbigh Street	2
Salisbury Road	2
Hood Street	2
Bulwer Street	2
Holywell Street	4
Knowsley Road	1
Cranworth Street	1
Armstrong Street	2
Gray Street	1
Campbell Street	2
Hooton Place	1
Derby Road	1
Akenside Street	3
Talbot Street	1
Stafford Street	1
Blackburn Grove	1
Byron Street	1
Burns Street	1
Shelley Street	1
Southey Street	1
Percy Street	1
Total	58

INFLUENZA.

This disease was prevalent in the 1st, 2nd and 4th quarters of the year. The number of deaths in 8 months of the year were as follows :—January 1, February 2, March 3, April 4, May 1, June 1, October 4 and December 4. There were no deaths from it in the third quarter. The deaths registered were directly from influenza, but as I have often observed when this disease is prevalent there is an epidemic influence in operation which causes a greater fatality to diseases of the pulmonary organs than there otherwise would be. Probably many of the deaths registered, as due simply to bronchitis and pneumonia, were really complications of influenza.

PUERPERAL FEVER.

Three notifications only of this very fatal disease were sent to me during last year, and 3 deaths were registered from it. I think there must have been other cases which ought to have been notified, but it is very difficult to discover these cases excepting death threatens.

ERYSIPELAS.

There were 40 cases of this disease notified during the year, but only one death was registered from it.

OTHER ZYMOTICS.

Of zymotic diseases of minor importance there were 2 deaths registered from rheumatic fever. There were also 3 deaths registered from syphilis, all being of infants.

DISEASES OF UNCERTAIN SEAT.

The total number of deaths from these diseases was 42, which number was 3 less than that of last year, all being of persons over 5 years of age. Of the total number 36 were of cancer, an increase of one only when compared with last year.

TUBERCULAR DISEASES.

The ever-increasing interest in tubercular diseases evinced by nearly every class of inhabitants proves the great advance that is being made in the endeavour to lessen the large mortality from these diseases. The "National

Association for the Prevention of Consumption" is making every effort to secure the co-operation of the people and to direct its action in an aggressive warfare against the tubercle bacillus. During the last year the total number of deaths registered in Bootle from this class of diseases was 106, showing a slight increase of 9 on the deaths in 1898. Of these 65 (an increase of 5) were due to phthisis, 17 to tabes mesenterica, 16 to tubercular meningitis, 1 to hydrocephalus and 7 to general tuberculosis. There were also 27 deaths of Bootle persons in the workhouses from phthisis, so that the total number of deaths of Bootle persons from phthisis in 1899 ought to be really 92, which is an increase of 18 when compared with the deaths from phthisis in 1898. The death-rate from phthisis in Bootle in 1899 was 1·7, and thus it will be seen there was a small increase of deaths from phthisis, and also from the other forms of tubercular diseases in 1899. The deep interest taken in this subject by all medical practitioners, particularly Medical Officers of Health, and all Sanitary Authorities, must be productive of good results in a few years, in lessening the mortality. In Liverpool the Select Vestry, the West Derby Guardians and the Toxteth Guardians have all combined to erect a large sanatorium in a suitable locality. The Bootle Corporation obtained the Royal Assent on 9th August, 1899, to a new Act, called the "Bootle Corporation Act, 1899." This Act gives large and additional powers over dairies and milk shops, and as the sections of Part IV. are in my opinion, so very important with regard to tuberculosis, I have inserted a copy of these sections in this Report. The most important section I think is No. 34. This section makes it lawful "(1) for the Medical Officer of Health, or any person provided with, or if required exhibiting the authority in writing of such Medical Officer of Health, to take within the Borough for examination, samples of milk produced or sold, or intended for sale within the Borough. (2) The like powers in all respects may be exercised *outside* the Borough by the Medical Officer of Health, or such authorised person, if he shall first have obtained from a justice having jurisdiction in the place where the sample is to be taken, an order authorising the taking of samples of the milk, which order any such justice is hereby empowered to make." There is no doubt therefore this Act confers greatly increased powers over dairymen and milk dealers, and will I hope enable the Sanitary Authority to guard more effectually against the sale of tubercular milk. Compulsory notification has been advocated very strongly by many Medical Officers of Health, but as this would be looked on, in my opinion, as "social tyranny" and would produce much friction between Medical Officers of Health and private practitioners, it is really impracticable at present, but a well-planned system of voluntary notification might be adopted with advantage, and I find Dr. Newsholme, Medical Officer of Health of Brighton, claims that it has been tried, and has done real service in many ways in Brighton. There is no doubt that this fatal disease is to a large extent preventable, particularly if sufferers could be persuaded to assist in the destruction of the infective material, and by cutting off the supply of fresh infection at its sources. These sources are 1st, infected persons; 2nd, infected dust, fabrics and furniture; 3rd, infected food; 4th, infected animals. Infected persons certainly should be prohibited from the filthy practice of spitting in streets, tramcars, railway carriages and other public places. By the co-operation of medical practitioners and health officers precautionary measures should be reiterated in order to correct evil-house conditions whether structural or due to dirtiness, which play such an essential part in the spread of phthisis. A healthy individual to avoid tubercle ought to have plenty of open air and sunshine, to be well-fed with good food, and to live in a well-ventilated house in a proper sanitary condition with windows admitting plenty of sunshine. After the death of a patient, a thorough disinfection of the room or rooms he occupied should be carried out, and some have advocated disinfection during illness. With regard to infected food, and infected animals, the State can deal with great advantage. If tuberculosis in the Bovine species could be abolished, we should be far on the way to get rid of this scourge on the human race. The recommendation of the Royal Commission on tuberculosis, that no meat from cattle affected with general tuberculosis should be permitted to be sold for food certainly should be adopted. The State should at least protect us from the importation of tuberculous cattle from abroad, and if foreign cattle are found to be tuberculous, they ought to be at once destroyed. The tuberculin test ought to be a protection to the farmer as well as to the public. In a special Report on tuberculosis by the Medical Officer of Health of Sheffield, Dr. Robertson affirms "that so far as danger to man is concerned, the disease among other animals would disappear were cattle and more especially milch cows dealt with. He states that during a period of 45 years in England and Wales, phthisis (or tubercular disease of the lungs) had diminished by 45·4 per cent, yet tabes mesenterica had been reduced by only 8·5 per cent, and that among infants under 1 year it had actually increased in amount. This increase is probably due to the much larger number of infants who are fed on cow's milk now-a-days." It is therefore clear that the danger to infants and young children from tubercular milk is far greater than to man. In cases of tabes mesenterica, where the glandular structures of the bowels are affected, young children are mainly affected, and the indications are very strong that the infection is caused by tubercular milk, as it will be noticed that young children are affected at ages when milk forms the chief article of diet, and statistics show that as soon as this ceases the mortality from tabes mesenterica declines to an insignificant quantity. To use the words in the Report of the Royal Commission, "the milk of cows with tuberculosis of the udder possesses a virulence which can only be described as extraordinary," Dr. Robertson remarks that in the case of phthisis the reduction of "mortality is probably due to the vast strides that have been made in general sanitation, especially in the betterment of the houses of all classes of the people, the better control of unhealthy occupations, and of workshops and factories, and also to improvement in medical treatment." With regard to the *inheritance* of the disease, I may here mention that "tuberculosis is practically never handed down from parent to child," but inheritance is undoubtedly a *predisposing* cause of the disease, for children of tubercular parents when exposed to infection are more liable than others to contract the disease. The other predisposing causes are overcrowding, dark, damp, and ill-ventilated houses and workshops, intemperance, insufficient food, some trades, fevers and other debilitating illnesses. With regard to "Instruction for Consumptives" I believe that copies of the leaflet drawn up by the National Association for the Prevention of Consumption might be distributed to persons known to be suffering from this disease. In this way every case of consumption reported would be visited and the general sanitary surroundings of the home and workplace noted. With respect to the destruction of infant life every summer and autumn by impure milk and putrifying milk-foods, I will here mention the experience, after very careful investigation, of Dr. Hope, Medical Officer of Health for Liverpool. Dr. Hope has found that if 20 infants out of every thousand below three months of age, fed upon the breast alone, die from infantile diarrhœa, no less than 300 die out of every 1,000 fed upon cow's milk and artificial foods as well as breast milk, but if they get no breast milk at all, nothing in fact but cow's milk and other artificial foods, it would appear that the deaths of those under three months of age would increase from 20 to 440 per 1,000, a number almost incredible. The virulent nature which milk can assume is proved, not only by these facts, but also by the investigations of the bacteriologist; it was found that some samples of ordinary milk purchased in the ordinary way proved so highly virulent as to kill the animal inoculated with it within 48 hours.

DISEASES OF BRAIN, SPINAL MARROW, &c.

The number of deaths registered from this class of diseases in 1899 was 104. This number exceeds that in 1898 by 19, and the number of children under 5 years of age (34) was 1 less than in 1898. The number of infants registered under the vague term of "convulsions" (19) was 2 less than the number in 1898.

DISEASES OF THE HEART AND BLOOD VESSELS.

The number of deaths registered from these diseases in Bootle was 55, which number exceeded that in 1898 by 10. There were however, 13 deaths of persons belonging to Bootle occurring in the workhouses, but 4 persons died in Bootle from these diseases "not belonging thereto." The difference of these numbers would thus add 9 to the 55 deaths mentioned.

DISEASES OF THE LUNGS AND AIR PASSAGES.

The total number of deaths from these diseases registered in Bootle in 1899 was 296, this number including 3 from laryngitis, 1 from "disease of the lung," and 1 from "Hœmoptysis." Irrespective of the three last-named diseases, all the deaths from diseases of the lungs were from bronchitis, pneumonia, and pleurisy. The total number was 66 more than in 1898. There were however, 23 Bootle persons who died in the workhouses "outside the district" from these diseases, and 4 persons died in Bootle "not belonging thereto"; the difference of these numbers (19) ought to be added to the 296 registered in Bootle, making the total mortality from these diseases to amount to 315, which number was an increase of 58 over that in 1898. Of the total number 131 were of children under 5 years of age. As influenza was more or less prevalent during the greater part of the year, especially in the 1st and 4th quarters, I attribute the large increase of these deaths to the epidemic influence of influenza over them.

OTHER DISEASES.

The deaths from "other diseases" in 1899 when compared with those in 1898, were as follows:—Diseases of kidneys, bladders, &c. 22, an increase of 6; diseases of uterus, child-birth, &c. 7, an increase of 6; diseases of stomach, liver, &c. 61, a decrease of 2. In addition, 3 deaths were registered from diseases of bones, 4 from diseases of skin, cellular tissue, &c., 7 from malformations, 33 from premature birth, 29 from atrophy and debility, and

30 from old age and natural decay. The deaths of 18 persons (a decrease of 2), were registered during the year, aged 80 and upwards, viz.:—4 in January, 2 in February, 1 in April, 3 in May, 1 in June, 3 in September, 1 in October, and 3 in December. Of these 18 old persons 6 died aged 80, 3 died aged 81, 1 died aged 82, 3 died aged 85, 1 aged 86, 1 aged 87, 1 aged 88, 1 aged 90, and 1 aged 94. In addition to these old persons who died in Bootle, 6 old Bootle persons died in Walton Workhouse, viz.:—1 aged 80, 4 aged 81, and 1 aged 84.

DEATHS THROUGH VIOLENCE, &c.

Sixty deaths through *violence, &c.* occurred during the year, being a decrease of 8 when compared with the number from this cause in 1898. In addition to these deaths, 6 deaths were registered from "natural causes," the precise cause not being shown. Of the 60 deaths, 9 were of children under 5 years of age, and the causes of these deaths were as follows:—32 (an increase of 2) were due to *injuries* either from accidents or negligence, 9 were from *drowning* or *effects of immersion*, 10 from *burns* or *scalds*, 5 were from *suffocation*, 2 from "*excessive drinking*," 1 from *suicide*, and 1 from *misadventure*. During the year 53 deaths (an increase of no less than 23) were registered "uncertified" by any medical practitioner, and of these 27 were children under 5 years of age. The percentage of these deaths is certainly a large one, being 4·5, which is 1·5 per cent larger than that of last year, and is nearly 1 in the 1,000 of the death-rate.

INQUESTS.

The number of inquests held during the year was 66, a decrease of 13 when compared with the number in 1898. The number of inquests in each month was as follows:—January 4, February 3, March 4, April 5, May 1, June 8, July 8, August 3, September 6, October 12, November 2, and December 10. It will thus be noticed that a little over 5·6 per cent of the deaths in this Borough formed the subject of legal inquiry.

HORSE AMBULANCE FOR ACCIDENTS, &c.

This ambulance carriage has continued its useful work during the year, and I am always desirous of mentioning the work it has done, because I consider that the expeditious and yet careful manner in which it is worked has saved a great deal of suffering and probably the *lives* of injured persons. Mr. Roberts, the Superintendent of the Fire Brigade, informs me that after information of an accident has been received, the ambulance can turn out in

30 seconds during the day and in 1½ minutes during the night. The following is the list of ambulance cases conveyed to the Bootle Borough Hospital during the year :—Calls received between 6 p.m. and 6 a.m. 185, and between 6 a.m. and between 6 p.m. 373—Total 558. The accidents and urgent cases were as follows :—41 compound fractures, 75 simple fractures, wounds 130, "fits" 22, burns and scalds 15, immersion cases 23, poisoning 12, dislocations 7, other injuries 207, dead 21, private cases 5—Total 558. I may here mention that nearly all the members of the Fire Brigade are members of the St. John's Ambulance Association, and I think the promptness in which they turn out when required reflects great credit on them.

PUBLIC BATHS AND GYMNASIUM.

The report of the Manager of these Baths, Mr. McMahon, is as follows :—

During the year ended December, 1899, the Baths were well used by the inhabitants of the Borough, the tabulated statement below showing a total of 74,148 bathers for the year, being an increase of 5,949 above last year. The salt water supplied continues to be bright and clear. Systematic instruction in "Life Saving Drill" was largely carried on by the police force, swimming clubs, and several schools. A large number of medallions and certificates of efficiency in "Life Saving Drill" have been obtained by each of these swimming clubs. The tabulated statement is as follows :—

Quarter ending	March ...	Males	3,240	Females	90	Total	3,141
,,	June ...	,,	27,907	,,	4,439	,,	32,346
,,	September	,,	29,112	,,	5,394	,,	34,506
,,	December	,,	3,936	,,	219	,,	4,155
Totals for the year		Males	64,006	Females	10,142	Total	74,148

The *Gymnasium* continues to be much appreciated by many of the young people. They find both amusement and pleasure in the various exercises and drills. Ladies and school-girls seem to appreciate the Gymnasium more than gentlemen and boys. This fact may be accounted for on the ground that the former have not the freedom in out-door exercise that the latter have. Many continue to testify to receiving considerable benefit from the use of the baths and gymnasium. The numbers enrolled in the several gymnastic classes were 81 gentlemen, 41 boys, 204 ladies, 43 school-boys, and 129 school-girls—Total 498.

SANITARY WORK.

A large amount of sanitary work was accomplished during the year, as Table No. 5 containing the Sanitary Inspector's Report, fully shows. It will be seen that 374 houses or parts of houses were disinfected, and that 371 notices were sent to cleanse the same. The number of houses cleansed by order of the Corporation in default of owners was 21. The number of times bath and disinfecting box were used by staff and public was 487, and 920 inspections of infected houses were made. In addition to these 920 inspections made by the inspectors, 582 visits were made to infected houses by the Ambulance Officer, making a total of 1,502. The ambulance carriage that removes infectious cases to hospital, removed during the year 187 cases from Bootle and 79 from the out-townships. I will here mention the measures taken to prevent the spread of infection after an infectious case has been notified. An inspector visits the house as soon as possible, and if the case is not properly isolated, he recommends that it should be removed to hospital. He also makes a thorough examination of the house and premises, also the drains, &c., and directs that disinfectants should be taken to the infected house. He also gives information to the School Board Authorities if children are attending school from the infected house, to the Librarian of the Free Public Library and the House Surgeon of the Bootle Borough Hospital, and ascertains the source of the milk supply. In short, I think nothing of any importance has been omitted in preventing the spread of infection.

SYSTEMATIC INSPECTIONS.

Systematic house-to-house inspections have been carried out during the past year, the result of which will be seen in Table 5. When necessary I have accompanied the inspectors in these inspections, and those which I have more especially made have been inspections with regard to sanitary defects in the cottage property and residences of the labouring classes. I made two house-to-house inspections of the Miller's Bridge property, and also of all the houses in Molyneux and Matthew Streets, this being the locality in which typhus fever started in 1898. I have also made a number of inspections of dirty houses where it was found necessary to compel the owners and occupiers to cleanse, whitewash and re-paper, &c. The results of these inspections I have duly reported to the Health Committee at their fortnightly meetings.

REMOVAL OF EXCRETA AND REFUSE MATTER.

The Borough Engineer, Mr. J. A. Crowther, C.E., has supplied me with the following information :—During the year 1899 the numbers of ashpits emptied was 49,711. 14,514 tons of refuse matter have been burnt in the "Destructor." 166 boat-loads of manure were sent away from wharf, containing 8,450 tons. The refuse matter burnt in the Destructor, consisted of contents of dry ash-pits, and shop garbage of all kinds. The quantity was a little over 2,000 tons in excess of that burnt in 1898, and the clinkers remaining after the cremation are utilised in making concrete flags for paving.

NUISANCES.

Mr. Daley, the Chief Sanitary Inspector, reports that during the year 3,900 nuisances were reported, of which number 394 were inspected by special request of the tenants. The number of houses inspected and re-inspected was 7,100. The number of privy-middens inspected was 1,005, and the cases in which summonses were issued numbered 17. The nuisances dealt with were of the usual character, viz. :—Defective drainage, water-closets, sinks, bath and wash-basin waste-pipes, roofs, downspouts, yard surfaces, ventilation, filthy houses, &c.

COMMON LODGING HOUSES.

The Chief Sanitary Inspector reports that the number of houses on register at the commencement of year was 170, the number of houses newly registered was 72, number of houses vacated by keepers 41, number of houses now on register (end of year) 201, number of day and night inspections 2,300, number of infringements of bye-laws 320, number of cases brought before the magistrates 4.

WORKSHOPS.

The duty of visiting and inspecting the workshops in this Borough is entrusted to Inspector McCulloch. There is no doubt the inspection of workshops is a very important and responsible one, for if the regulations of these workshops are not enforced, particularly with regard to light, ventilation, cleanliness, overcrowding, time, &c., the persons employed (often young persons) would be very liable to contract tuberculosis or other diseases. The number of workshops on the register last year was 61, a decrease of 30. The defects reported were 7.

INSPECTION OF DAIRIES, COWSHEDS AND MILK SHOPS.

The number on the register for the sale of milk was 145, and of this number 36 have cowsheds attached. The number of inspections made was 560, an increase of 240 over the number in 1898, the number of notices served for defects found to exist was 20, and the number of cases of infectious sickness occurring on premises used as milkshops or cowsheds was 2. There is no doubt that dark, dirty, badly ventilated, insanitary shippons not having proper air space, favour the production of tubercular disease in cows, and that a diseased cow may infect other cows by means of its excretions, which excretions when dried may obtain an entrance into the milk and cause the milk to be diseased. In Bootle especially it is most important that shippons should be well looked after, considering that impure milk will cause diarrhœa, which is the most fatal zymotic disease we have to deal with. I will here suggest that I think all shops selling ice creams ought to be regularly inspected, as Dr. Hope traced an epidemic of typhoid in 1898 distinctly to this source.

FOOD INSPECTION.

The seizures of unsound food (4) during the year were not important, the amount seized being only 38 lbs. The number of cases brought before the magistrates was 2, and the orders for destruction 2.

BAKEHOUSES.

On the 4th of October, accompanied by Mr. McCulloch, Assistant Sanitary Inspector, I made my annual inspection of the bakehouses in this Borough:—We inspected 42 altogether, but found that 8 were not being used at the time of our inspection. We found that 23 required cleansing and lime-washing, and in 4 bakehouses we found sanitary defects, which have since been remedied. With regard to these bakehouses I reported to the Health Committee as follows:—" In my opinion it is very unfortunate that nearly all these bakehouses are really simple house cellars. There are only two that are built on modern principles, these are built on the ground level and the furnace for heating the oven is situated in the yard outside the bakehouse. In the cellar bakehouses the temperature during the hours of work is always high, particularly in the summer time when it becomes very close and warm, and when the fuel used in heating the oven is drawn out in the bakehouse it is said to give off carbonic acid and sulphurous acid freely, as well as some carbon monoxide and adds to the already high temperature. It is very necessary, therefore, that there should be free ventilation in these cellars, but when the windows are opened for this purpose dust and detritus from the roads is blown into the bakehouse and on to the dough. The ceiling level is not much either above or below the level of the adjoining street, and the areas are very narrow and often found to contain more or less accumulation of rubbish. The floors ought to be properly flagged or tiled (or better still, cemented) and kept perfectly clean to prevent decomposing flour from lodging in cracks or even on the surface of the flooring itself. The ceilings ought also to be kept clean and in good repair, for if otherwise, dirt will come through the ceiling from the shop or room above." I think it is very necessary therefore to keep a thorough supervision over bakehouses, both for the purpose of keeping the bread pure and free from germs and also for the purpose of preserving the health of the bakers employed.

INSPECTION OF CATTLE SHIPS AND CANAL BOATS.

These inspections are made by Assistant Inspector Owens. The number of inspections of cattle ships was 396; there were no cases brought before the magistrates. The number of inspections of canal boats was 140, and the number of infringements reported was 8, but it was not thought necessary to bring any of these before the magistrates. One case of infectious disease (scarlet fever) of an adult male was notified on board the canal boat "Romeo." The patient was at once removed to the Corporation Infectious Hospital, the boat being afterwards stoved by the staff of the Sanitary Department. A notice to cleanse and paint the boat was sent to the owners the same day, and the "Romeo" was detained in this district, *i.e.* at Carolina Street canal basin, until the required work was completed—a matter of three days.

FLUSHING OF DRAINS, SEWERS, &c.

The Chief Sanitary Inspector reports as follows :—The flushing of drains of private houses during the year 14,600 ; flushing of sewers 619 ; flushing of public buildings 229. The amount of water used was 2,188,400 gallons, or an average of 141 gallons to each house flushed. The staff consist of 3 men, and most of the work is done direct from the main. With the present number of men, the whole of the private drains in the Borough could be flushed once in 7 or 8 months, were it not for the time occupied in attempting to flush the public sewers. Nineteen urinals are now cleansed every week day, but during the hot weather those in populous neighbourhoods are cleansed twice every day. The public mortuary attached to the Bootle Borough Hospital is cleansed once each day.

DIRTY HOUSES.

The Chief Sanitary Inspector reports that 216 notices were sent during the year to cleanse the walls and ceilings of dirty houses. 279 notices were served upon occupiers to cleanse filthy bedding, floors, &c. and 20 dirty houses were fumigated (no infectious disease).

WATER SUPPLY.

Bootle is supplied by water by the Liverpool Water Committee, Bootle being allowed two representatives on the Committee. The supply is constant and abundant and as samples are regularly analysed every quarter, I believe it to be pure and wholesome, and well suited for domestic purposes. It is derived principally from Vyrnwy and Rivington, these two soft waters being mixed with a small proportion of hard water from one of the Liverpool Wells, the deep Bootle Wells having long since been disused. An abundant supply of good water such as we now have in Bootle, is certainly invaluable both for drinking and also for sanitary purposes, such as flushing, cleansing of yard surfaces, &c. so much needed in Bootle in the third quarter when infantile diarrhœa in epidemic and enteric fever was prevalent. Table No. 8 gives the quarterly analyses of the soft and hard waters supplied to us.

SANITARY CONVERSIONS.

A large increase in the number of these conversions has been effected during the past year, no less than 936 (or nearly 1000) privy middens having been converted into water-closets. In nearly every instance of these conversions, I believe the property owners availed themselves of the proviso under Article IV of the Bootle Provisional Order, 1897, "that if the Medical Officer of Health shall not have certified the existing closet to be insufficient for the necessities of the inhabitants of the building, or to be in such a state as to create a nuisance, or to be injurious to health, then one half of the expense of conversion shall be borne by the Corporation, and the remainder recovered summarily from the owner." I am informed that these conversions are still going on in the same satisfactory manner.

ADULTERATIONS.

The Chief Constable (Mr James Cumming), and Inspectors Leslie and Ferguson have the carrying out of the Food and Drugs Act during the year. Table No. 7 gives the number of samples taken and sent to the Public Analyst, and also the description of the food, &c. submitted for analysis, the result being that out of 96 samples taken, 13 persons were proceeded against, 10 being convicted and 3 discharged. Of the 13 persons who were proceeded against 8 were for adulterated milk, and the other adulterations were 3 for butter and 2 for coffee. Of the cases discharged 2 were for milk and 1 for coffee. Seven persons were proceeded against under the Margarine Act, of these 4 were convicted and 3 discharged.

DERBY PARK AND RECREATION GROUNDS.

Every year the Derby Park is becoming more attractive in appearance. The trees and shrubs are increasing in size, and through good supervision, are maintained in a healthy and vigorous condition. Mr. J. Drysdale, the Park Superintendent, spares no trouble in improving and making the flower beds more beautiful, and additions are made every year to the conservatories and greenhouses. There is no doubt that Parks, Gardens and Recreation Grounds form an important and pleasant way of promoting the health of the inhabitants of a Borough like Bootle, and I think the usefulness and importance of a careful expenditure on public parks from a health point of view is too often apt to be overlooked and under estimated.

SANITARY PROCEEDINGS AND ADVICE, &c.

In accordance with Act 14, Section 4, of the Local Government Board's Order, I have now briefly to refer to " Proceedings relating to conditions dangerous or injurious to health, in which I have taken part or advised " the Sanitary Authority during the year. I have regularly reported every fortnight during the year on the vital statistics of the borough, the sanitary requirements and the work accomplished, together with special reports when necessary. As I think I have fully commented on the "sanitary proceedings" in the previous part of this annual report, it will not be necessary for me to make any further remarks on this subject. I regret to have to report an increase in the death-rate of last year when compared with that of 1898, the death-rate in 1898 being 19·71, whilst that of last year was 22·4 per 1000. The principal cause of the increased mortality was the large increase of deaths from diseases of the lungs. I may here remark however that during the diarrhœa epidemic, hand bills containing instructions as to the proper diet for infants were freely distributed, and the residences of the infants who died were all visited by an inspector in order to discover if any sanitary defects were observable. I may also state that in December a circular letter was sent by me, by the order of the Health Committee, to 26 medical practitioners residing in Bootle, recommending them to advise their patients to inform their landlords as to the necessity of disinfecting houses in which fatal cases of phthisis had occurred, at the same time pointing out to them the advisability of thoroughly cleansing the room or rooms previously occupied by the said patients.

R. J. SPRAKELING,
M.R.C.S. Eng. L.S.A. Lond.
Medical Officer of Health.

APPENDIX.

PART IV.—INFECTIOUS DISEASE.

Penalty for Selling Milk of Diseased Cows.

31. Every person who knowingly sells or suffers to be sold or used for human consumption within the borough the milk of any cow which is suffering from tuberculosis of the udder shall be liable to a penalty not exceeding ten pounds.

Penalty on Failing to Isolate Diseased Cows.

32. Any person the milk of the cows in whose dairy is sold or suffered to be sold or used for human consumption within the borough who after becoming aware that any cow in his dairy is suffering from tuberculosis of the udder keeps or permits to be kept such cow in any field shed or other premises along with other cows in milk shall be liable to a penalty not exceeding five pounds.

Obligation to Notify Cases of Tuberculosis.

33. Every dairyman who supplies milk within the borough and has in his dairy any cow affected with or suspected of or exhibiting signs of tuberculosis of the udder shall forthwith give written notice of the fact to the medical officer of health of the borough stating his name and address and the situation of the dairy or premises where the cow is. Any dairyman failing to give such notice as required by this section shall be liable to a penalty not exceeding forty shillings.

Power to take Samples of Milk.

34.—(*1*) It shall be lawful for the medical officer of health or any person provided with and if required exhibiting the authority in writing of such medical officer of health to take within the borough for examination samples of milk produced or sold or intended for sale within the borough.

(*2*) The like powers in all respects may be exercised outside the borough by the medical officer of health or such authorised person if he shall first have obtained from a justice having jurisdiction in the place where the sample is to be taken an order authorising the taking of samples of the milk which order any such justice is hereby empowered to make.

Power to Inspect Cows and to take Samples of Milk.

35. (*1*) If milk from a dairy situate within the borough is being sold or suffered to be sold or used within the borough the medical officer of health or any person provided with and if required exhibiting the authority in writing of the medical officer may if accompanied by a properly qualified veterinary surgeon at all reasonable hours enter the dairy and inspect the cows kept therein and if the medical officer or such person has reason to suspect that any cow in the dairy is suffering from tuberculosis of the udder he may require the cow to be milked in his presence and may take samples of the milk and the milk from any particular teat shall if he so requires be kept separate and separate samples thereof be furnished.

(*2*) If the medical officer of health is of opinion that tuberculosis is caused or is likely to be caused to persons residing in the borough from consumption of the milk supplied from a dairy situate within the borough or from any cow kept therein he shall report thereon to the Corporation and his report shall be accompanied by any report furnished to him by the veterinary surgeon and the Corporation may thereupon serve on the dairyman notice to appear before them within such time not less than twenty-four hours as may be specified in the notice to show cause why an order should not be made requiring him not to supply any milk from such dairy within the borough until the order has been withdrawn by the Corporation.

(*3*) If the medical officer of health has reason to believe that milk from any dairy situate outside the borough from which milk is being sold or suffered to be sold or used within the borough is likely to cause tuberculosis in persons residing within the borough the powers conferred by this section may in all respects be exercised in the case of such dairy provided that the medical officer of health or other authorised person shall first have obtained from a justice having jurisdiction in the place where the dairy is situate an order authorising such entry and inspection which order any such justice is hereby empowered to make.

(*4*) Every dairyman and the persons in his employment shall render such reasonable assistance to the medical officer of health or such authorised person or veterinary surgeon as aforesaid as may be required by such medical officer person or veterinary surgeon for all or any of the purposes of this section and any person refusing such assistance or obstructing such medical officer person or veterinary surgeon in carrying out the purposes of this section shall be liable to a penalty not exceeding five pounds.

(*5*) If in their opinion the dairyman fails to show cause why such an order may not be made as aforesaid the Corporation may make the said order and shall forthwith serve notice of the facts on the county council of any administrative county in which the dairy is situate and on the Local Government Board and if the dairy is situate outside the borough on the council of the borough or county district in which it is situate.

(*6*) The said order shall be forthwith withdrawn on the Corporation or their medical officer of health being satisfied that the milk supply has been changed or that it is not likely to cause tuberculosis to persons residing in the borough.

(*7*) If any person after any such order has been made supplies any milk within the borough in contravention of the order or sells it for consumption therein he shall be liable to a penalty not exceeding five pounds and if the offence continues to a further penalty not exceeding forty shillings for every day during which the offence continues.

(*8*) A dairyman shall not be liable to an action for breach of contract if the breach be due to an order under this section.

Execution of this part of Act by Committee.

36. The foregoing provisions of this part of this Act may be carried into execution by a committee of the council formed in accordance with and subject to the provisions of the fourth schedule to the Diseases of Animals Act 1894 except that the committee shall consist wholly of members of the council.

Dairymen to notify Infectious Disease existing amongst their Servants.

37. All dairymen supplying milk within the borough from premises whether within or beyond the borough shall notify to the Corporation all cases of infectious disease among persons engaged on or in connection with their dairies and in default shall be liable to a penalty not exceeding forty shillings.

A. *TABLE OF DEATHS during the year 1899, in the Urban Sanitary District of Bootle (County Borough); classified according to* DISEASES, AGES *and* LOCALITIES.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities. (*Columns for Population and Births are in Table B.*)	Mortality from all causes, at subjoined ages.								Mortality from subjoined causes, distinguishing Deaths of Children under Five Years of Age.																					
													Fevers.																	
	At all ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued	Relapsing	Puerperal.	Tuberculosis	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa & Dysentery	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia and Pleurisy	Heart Disease.	Influenza.	Injuries.	All other Diseases.	Total.
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
WARDS.																														
Derby	244	75	45	16	6	73	29	Under 5			3							1			4	35			32	1		1	43	120
								5 upwds			1						1	2				5		16	29	8	8	5	49	124
Knowsley	385	140	59	12	13	119	42	Under 5			3	3		1				1		2	12	52		1	49			1	74	199
								5 upwds		1				1			3					5	1	18	66	16	7	4	64	186
Stanley	423	118	65	17	22	138	63	Under 5			3	1						2		4	5	44			46			3	75	183
								5 upwds		1			1	1				1	1			4		30	65	22	4	3	107	240
PUBLIC INSTITUTIONS: Bootle Borough Hospital	69	2	6	9	7	43	2	Under 5														1			1			4	2	8
								5 upwds															1		8	8		27	17	61
Corporation Hospital for Infectious Diseases	27		8	8	2	9		Under 5		6	2																			8
								5 upwds		4	1			11															3	19
Mortuary	16	2		1		11	2	Under 5																					2	2
								5 upwds																				10	4	14
TOTALS	1164	337	183	63	50	393	138	Under 5		6	11	4		1				4		6	21	132		1	128	1		9	196	520
								5 upwds		6	2		1	13			4	3	1			14	2	64	168	54	19	49	244	644

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside the district among persons belonging thereto.	105	3			8	66	28	Under 5																	3					3
								5 upwds																27	20	13			42	102
Deaths occurring within the district among persons not belonging thereto.	57	2	5	9	5	33	3	Under 5			2																	2	3	7
								5 upwds		2	1			4											4	4		26	9	50

R. J. SPRAKELING, *Medical Officer of Health*,
22nd March, 1900.

Area and Population of the District or Division to which this Return relates—
Area in Acreas, 1,590. Population (Last Census) 49,217. Estimated (1899), 54,000.
Death Rates—General 22·4 per 1,000. Infants 186 per 1,000 Births Registered.

B. *TABLE OF POPULATION, BIRTHS, AND NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1899, in the County Borough and Urban Sanitary District of Bootle; classified according to Diseases, Ages and Localities.*

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shewn as separate localities.	Population at all Ages.		Registered Births.	Aged under 5 or over 5.	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.													Number of such Cases removed from their Homes in the several Localities for Treatment in Isolation Hospital.												
									Fevers.													Fevers.								
	Census 1891.	Estimated to middle of 1899.			Smallpox.	Scarlatina	Diphtheria	Membranous Croup.	Typhus	Enteric or Typhoid.	Continued	Relapsing	Puerperal	Cholera.	Erysipelas		Totals.	Smallpox.	Scarlatina	Diphtheria	Membranous Croup.	Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas		Totals.
(a)	(b)	(c)	(d)	(e)	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
Wards.																														
Derby	49,217.	54,000.	1,809.	Under 5		19	3	1		3							26		16	1			2							19
				5 upwds.		42	2	1		15			1		12		73		25				6							31
Knowsley				Under 5		25	7	5		2							39		15	2	1									18
				5 upwds.		62	9			41			2		14		128		42	4			32							78
Stanley				Under 5		12	6	2							1		21		5											5
				5 upwds.		38	9		1	16					13		77		21	4			11							36
Totals in Bootle	49,217	54,000	1,809	Under 5		56	16	8		5					1		86		36	3	1		2							42
				5 upwds.		142	20	1	1	72			3		39		278		88	8			49							145
Waterloo-with-Seaforth				Under 5															5											5
				5 upwds.														1	23	2		1	5							32
Litherland				Under 5																3										3
				5 upwds.															7	1			6							14
Crosby				Under 5															2											2
				5 upwds.															14	1			7							22
Sefton				Under 5																										
				5 upwds.															1											1
Totals from the out-townships				Under 5															7	3										10
				5 upwds														1	45	4		1	18							69
Totals	49,217	54,000	1,809	Under 5		56	16	8		5					1		86		43	6	1		2							52
				5 upwds.		142	20	1	1	72			3		39		278	1	133	12		1	67							214

Notification of Infectious Diseases in the district was adopted in 1st June, 1891. The Corporation Hospital for Infectious Diseases, Linacre, is situated in Derby Ward.

TABLE No. 1—Tabular Statement of the number of *Births* and the number of *Deaths* and *Infant Mortality* in each months in 1899, comparing these numbers with those in 1898; also the percentage of Deaths under 5 years to total Deaths in 1899.

	BIRTHS.			DEATHS.			DEATHS	INFANT MORTALITY			INFANT MORTALITY, 1898.	
	1899.		1899. Total.	1899.			1898.	1899.		Percen'ge of Deaths under 5 Years to Total Deaths.	Under 1 Year.	1 Year and under 5Years
	Males.	F'males		Males	Females.	Total.	Total.	Under 1 Year.	1 Year & under 5.			
January ...	79	73	152	51	40	91	71	24	13	40·65	14	16
February..	75	75	150	57	55	112	69	26	19	40·17	20	9
March......	64	76	140	56	52	108	87	25	20	41·66	22	15
April	85	72	157	35	45	80	79	15	8	28.75	24	12
May.........	76	76	152	39	35	74	76	21	12	44.59	22	13
June	84	69	153	40	45	85	62	24	11	41.17	19	10
July.........	66	73	139	66	52	118	110	63	18	68.64	50	17
August ...	66	69	135	60	64	124	103	55	24	63.70	52	17
September	76	79	155	57	50	107	110	35	20	51.40	40	24
October ...	71	99	170	42	40	82	93	16	12	34·14	38	17
November.	83	79	162	31	40	71	70	15	10	35·21	10	11
December.	77	67	144	60	52	112	75	18	16	30.35	18	13
	902	907	1809	594	570	1164	1005	337	183	44.67	329	174

TABLE No. 2—Number of Infectious Cases notified to the Sanitary Authority in each month in 1899.

Diseases.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Small-pox........................	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever..............	13	12	18	11	12	10	12	13	18	36	21	22	198
Diphtheria	2	1	4	3	1	7	7	3	2	—	5	1	36
Membranous Croup	1	1	3	2	—	—	—	—	—	—	—	2	9
Typhus Fever...............	—	—	—	—	—	1	—	—	—	—	—	—	1
Enteric (or Typhoid) ...	2	1	3	4	5	7	3	9	13	10	17	3	77
Puerperal Fever............	—	—	—	1	—	—	—	—	—	2	—	—	3
Erysipelas	3	1	5	3	1	3	1	4	3	2	7	7	40
Totals..........	21	16	33	24	19	28	23	29	36	50	50	35	364

TABLE No. 3—Shows the number of Deaths from the Seven Principal Zymotic Diseases in the Ten Years, 1889 to 1898 (inclusive) and in the Year 1899.

DISEASES.	1889.	1890.	1891	1892.	1893	1894.	1895.	1895.	1897.	1898.	An'al Av'ge of 10 Years, '89-9	Total Deaths in 1899.	Do after d'dtg & add'g Dth from outside and inside Borough
Small-pox	1	—	—	—	4	—	2	—	—	—	.7	—	—
Measles	30	16	35	7	24	15	2	31	14	7	18.1	6	6
Scarlet Fever	8	27	31	32	20	36	13	20	12	10	20 9	12	10
Diphtheria..................	12	6	7	14	3	5	12	7	5	8	7·9	13	10
Cont'd Fevers Typhus	3	1	—	1	—	—	—	—	—	7	1·2	1	1
Cont'd Fevers Enteric or Typh'd	17	8	13	16	46	33	23	24	20	17	21.7	14	10
Cont'd Fevers Simple Continued	—	2	1	—	—	—	—	—	—	—	.3	—	—
Whooping Cough........	20	50	35	6	34	23	26	15	14	28	25.1	21	21
Diarrhœa	74	61	52	40	131	45	106	72	153	114	84.8	146	146
Totals.........	165	171	174	116	262	157	184	169	218	191	180.7	213	201

TABLE No. 4.—Summary of Causes of Deaths during the Year 1899.

	1899. Names of Diseases.	JAN. Under 5	JAN. 5 and up.	FEB.		MAR.		APR.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL. Under 5	TOTAL. 5 and up.	TOTAL
	Zymotic Diseases.																											
7 Principal Zymotics.	Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	= ..
	Measles	.	..	1	..	2	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	6	..	= 6
	Scarlatina	2	..	..	..	..	..	..	..	2	1	..	..	1	..	..	..	..	..	..	2	..	1	1	2	6	6	= 12
	Diphtheria	2	1	..	..	1	..	2	..	..	..	1	..	2	1	1	..	..	..	..	..	2	..	..	..	11	2	= 13
Fevers	Typhus	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	= 1
	Enteric or Typhoid	..	..	..	1	..	..	..	2	..	1	..	..	1	..	..	1	..	2	..	2	..	3	..	1	1	13	= 14
	Simple Continued	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	= ..
	Whooping Cough	3	..	3	..	..	..	..	..	2	..	3	..	4	..	..	..	1	..	3	..	..	..	2	..	21	..	= 21
	Diarrhœa and Dysentery	2	..	1	1	3	..	..	..	2	1	5	..	38	1	53	4	25	6	2	1	..	..	1	..	132	14	=146
	Membranous Croup	..	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	4	..	= 4
	Puerperal Fever	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	= 3
	Erysipelas	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	= 1
	Rheumatic Fever	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	= 2
	Syphilis	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	3	..	= 3
	Purpura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	= ..
	Pyæmia and Septicæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	= ..
	Influenza	..	1	..	2	..	3	..	4	..	1	..	1	..	..	..	..	..	..	..	4	..	..	..	4	..	20	= 20
	Dis. of uncertain seat, (incl'ding Cancer 36)	..	4	..	5	..	5	..	1	..	5	..	1	..	3	..	4	..	5	..	2	..	3	..	4	..	42	= 42
	Diseases Tubercular (Phthisis 65)	2	5	2	9	6	9	2	6	6	7	2	3	4	6	2	2	3	5	2	3	1	9	1	9	33	73	=106
	Diseases of Brain, Spinal Marrow, &c.	3	6	2	2	3	6	2	9	1	4	4	7	5	6	5	4	3	11	4	3	..	3	2	9	34	70	=104
	——— of Heart and Blood Vessels	..	3	..	5	..	5	..	6	1	4	..	9	..	4	..	8	..	5	..	1	..	2	..	2	1	54	= 55
	——— of Lungs and Air Passages	7	18	23	32	19	21	8	14	6	7	8	12	7	4	5	3	11	3	10	14	9	16	15	24	128	168	=296
	——— of Stomach, Liver, &c.	2	2	2	1	2	2	..	4	1	1	2	1	3	2	4	4	3	1	2	5	4	4	2	7	27	34	= 61
	——— of Kidneys, Bladder, &c.	..	2	..	3	..	1	..	3	..	1	..	1	..	1	..	4	..	..	..	1	1	1	1	2	2	20	= 22
	——— of Uterus, Childbirth, &c.	..	1	..	1	..	1	..	..	..	..	..	..	..	1	..	2	..	1	..	..	..	..	..	..	..	7	= 7
	Malformations	1	..	..	..	1	..	2	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	7	..	= 7
	Premature Birth	5	..	1	..	2	..	1	..	3	..	2	..	1	..	4	..	4	..	3	..	3	..	4	..	33	..	= 33
	Atrophy and Debility	2	..	4	..	1	..	2	..	5	..	4	..	5	..	1	..	3	..	1	1	..	..	..	..	28	1	= 29
	Old Age and Natural Decay	..	5	..	3	..	1	..	2	..	4	..	2	..	1	..	2	..	5	..	1	..	2	..	2	..	30	= 30
	Diseases of the Bones, &c.	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	= 3
	Diseases of the Skin and Cellular Tissue	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	4	..	= 4
	Deaths through Violence, &c.	..	4	1	2	..	4	2	1	..	1	1	7	1	6	..	3	1	4	1	10	1	..	1	9	9	51	= 60
	Natural Causes	..	..	..	..	..	..	2	..	..	..	..	..	..	1	..	..	..	1	..	1	..	1	..	..	2	4	= 6
	Not Certified (causes doubtful)	4	2	3	..	3	4	..	2	2	2	2	5	8	..	..	4	1	2	..	2	2	..	2	3	27	26	= 53
		37	51	45	67	45	63	23	57	33	41	35	50	81	37	79	45	55	52	28	54	25	46	31	78	520	644	=1164
		91		112		108		80		74		85		118		121		107		82		71		112		=1164		
		Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		YEAR.		
		127+184=311 1st Quarter.						91+148=239 2nd Quarter.						215+134=349. 3rd Quarter.						87+178=265. 4th Quarter.						520+644=1164		

Table No. 5.

CHIEF SANITARY INSPECTOR'S REPORT FOR THE YEAR, 1899.

Nuisances.

No. of Special Complaints	394
,, Houses Inspected and Re-inspected	7100
,, Nuisances Reported	3900
,, Inspections of Middens	1005
,, Cases in which Summonses were issued	17

Disinfection.

No. of Houses or parts of Houses disinfected		374
,, Notices sent to cleanse same		371
,, Houses cleansed by order of Corporation in default of owners		21
,, Times bath and disinfecting box used by Staff and Public		487
,, Inspections of Infected Houses		920
,, Infectious Cases removed to Hospital—		
From Bootle	187	
,, Waterloo-with-Seaforth	37	
,, Litherland	17	
,, Crosby	24	
,, Sefton (by agreement)	1	
Total ...	——	266

In addition to the 920 inspections made by the Inspectors, 582 visits were made to infected houses by the Ambulance Officer, making a total of 1,502.

Inspections of Workshops.

No. of Registered Workshops inspected	61
,, Defects reported during the year	7

INSPECTIONS OF COMMON LODGING HOUSES.

No. of Houses on register at commencement of year	170
,, Houses newly registered	72
,, Houses vacated by Keepers	41
,, Houses now on Register	201
,, Day and Night Inspections	2300
,, Infringements of Bye-laws	320
,, Cases brought before Magistrates	6

DAIRIES, COWSHEDS AND MILKSHOPS.

No. on Register	145
Of the above, 36 have Cowsheds attached	
No. of Inspections made	560
,, Notices served for defects found	20
No. in which Infectious Disease occurred during the year	2

INSPECTION OF BAKEHOUSES.

No. of Bakehouses	42
,, Notices sent in reference to cleansing of same	23
,, Bakehouses found with sanitary defects, which have since been remedied	4

FOOD INSPECTION.

No. of Seizures of unsound food	4
Amount seized during the year	38-lbs.
No. of Magistrates' Orders for destruction	2
,, Cases brought before the Magistrates	2

FLUSHING.

No. of Private Houses	14600
,, Sewers	619
,, Public Buildings	229

The amount of water used was 2,188,400 gallons, or an average of 141 gallons to each house flushed.

The staff consists of 3 men, and most of the work is done direct from the main.

With the present number of men, the whole of the private drains in the Borough could be flushed once in 7 or 8 months, were it not for the time occupied in attempting to flush the public sewers.

19 urinals are now cleansed every week day, but during the hot weather those in populous neighbourhoods are cleansed twice every day.

The public mortuary attached to the Bootle Borough Hospital is cleansed once each day.

FILTHY HOUSES.

No. of Notices sent to cleanse the walls and ceilings of filthy houses	216
,, Served upon occupiers to cleanse filthy bedding, floors, &c.	279
Dirty Houses fumigated (not for infectious disease) ...	20

INSPECTION OF CATTLE SHIPS AND CANAL BOATS.

No. of Inspections of Cattle Ships	396
,, Inspections of Canal Boats	140
Infringements reported	8

Table No. 6—Legal Proceedings.

Breaches of Common Lodging House Regulations	6
Nuisances—Neglect to comply with Nuisance Notices	13
Defective Drains	3
Fowls kept as a nuisance	1
Depositing rubbish in carriage-way	1
Defective Yard Surface	1
Filthy Bedding, &c.	1
Unsound Food	2
Patient publicly exposing herself whilst suffering from Infectious Disease	1
	29

TABLE No. 7.

PROCEEDINGS TAKEN UNDER THE FOOD AND DRUGS ACT FOR THE YEAR ENDED 31st DECEMBER, 1899.

Nature of Samples taken	No of Samples taken	No. of Persons proceeded against with the result of proceedings		
		Total	Convicted	Discharged
New Milk	71	8	6	2
Butter	20	3	3	...
Coffee	2	2	1	1
Syrup	2	...	...	..
Vinegar	1	...	...	...
Totals	96	13	10	3

Seven persons were proceeded against under the Margarine Act, of these four were convicted and three discharged.

TABLE No. 8—ANALYSIS OF HARD AND SOFT WATERS SUPPLIED BY THE LIVERPOOL WATER COMMITTEE, TO LIVERPOOL, BOOTLE AND OTHER DISTRICTS IN THE FOUR QUARTERS OF 1899.

Description 1899.	DATES OF		Total Solid Matter in Solution	Organic Carbon.	Organic Nitrogen	Ammonia.	Nitrogen as Nitrates	Total combined Nitrogen	Chlorine	Oxygen consumed		Total Hardness.
	Analysis Report	Samples Drawn								In 15 mins.	In 3 hrs.	
Vyrnwy	Mar. 25th, 1899.	Mar. 14th & 16th, 1899.	4·44	·242	·012	·002	·000	·014	0·9	·121	·187	1½°
Rivington			9·6	·226	·017	·000	·000	·017	1·6	·056	·100	4°
Green Lane (1st sample)			32·68	·025	·012	·000	·504	·516	3·5	·000	·000	21°
Do. (2nd sample)			33·12	·029	·012	·002	·504	·516	3·5	·000	·000	21°8
					The	samples	are	wholesome.				
2ND QUARTER.												
Vrynwy from Prescot ...	June 28th, 1899.	June 14th, 1899.	4·6	·191	·011	·002	·000	·013	0·9	0·79	·154	2°
Rivington			9·36	·152	·011	·002	·000	·013	1·7	0·34	·072	3½°
Green Lane Well ...			32·56	·025	·006	·000	·415	·421	3·5	·000	·001	22°
				All	these	samples	are of	good	quality			
3RD QUARTER.												
Vyrnwy from Prescot ...	Sept. 29th, 1899.	Sept. 15th, 1899.	4·7	·168	·023	·000	·000	·023	0·9	·054	·122	2°
Green Lane			31·6	·031	·000	000	·572	·572	3·4	·001	·008	19°
4TH QUARTER.												
Vyrnwy	Dec. 23rd, 1899.	Dec. 5th & 7th, 1899.	4·16	·222	·034	·002	·000	·036	0·9	·083	·132	1°7
Rivington...			9·2	·136	·029	·003	·000	·032	1·5	·032	·045	3°9
Green Lane			32·8	·032	·006	·001	·482	·487	3·25	·000	·002	18°8
					The	samples	were	all satisfactory				

Table No. 9.

1899.

Localities.	Jan.		Feb.		Mar.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.		
	Under 5	5 and up.																							Under 5	5 and up.	
Aber Street	...	...	...	...	1	1	...	...	...	1	3	...	2	...	2	...	1	...	...	...	1	1	...	3	10	6	16
Addison Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Akenside Street	2	...	...	...	1	...	...	...	...	1	1	...	...	1	2	...	2	...	1	...	...	2	...	...	9	4	13
Albany Place	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alma Vale Terrace ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alexandra Dock	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ampton Place	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Antonio Street	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Armstrong Street. ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	2	...	...	...	...	1	...	1	3	3	6
Ash Street.	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	2	3
Ashcroft Street	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Audley Street	...	...	3	...	1	1	...	1	2	1	1	...	2	...	5	1	...	1	1	...	2	1	1	...	18	6	24
Bala Street	1	...	...	...	2	...	...	1	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	5	2	7
Balliol Road	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Bangor Street	1	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	3	2	5
Bank Road	...	...	...	1	...	1	...	...	...	2	...	...	1	...	...	2	...	...	...	...	...	2	...	2	1	10	11
Beattie Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Beatrice Street	1	...	...	...	1	3	...	1	...	...	...	...	...	...	...	1	...	2	...	...	...	1	...	...	2	8	10
Benedict Street	2	1	..	1	1	1	..	..	1	..	..	..	1	..	1	..	1	1	..	1	..	1	1	2	8	8	16
Bedford Place	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	2	3
Bedford Road, Derby Wd	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	2
Bedford Road, Stanley Ward, and Terrace ...	2	1	..	1	..	2	..	..	..	..	1	..	1	..	..	2	1	..	..	..	..	1	..	3	5	10	15
Beech Street	..	..	..	...	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	2	1	3
Berry Street	..	1	..	...	..	..	..	3	..	..	1	1	3	..	1	..	..	1	..	..	2	1	1	..	8	7	15
Bianca Street	..	..	1	1	..	..	..	..	..	..	..	1	.	..	..	1	..	..	1	..	..	..	..	3	2	6	8
Bibby's Lane	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
Blackburn Grove... ..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	2	1	3	4
Boreland Street	1	1	1	1	1	1	1	1	1	1	..	1	3	..	1	..	..	..	..	3	..	...	..	..	9	9	18
Bennett Place	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Carried forward	10	7	7	6	10	13	1	7	5	8	8	4	16	1	14	7	9	8	3	5	5	14	3	16	91	96	187

1899.

LOCALITIES.	JAN.		FEB.		MAR.		APRIL.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
	Under 5	5 and up.																							Under 5	5 and up.	
Brought Forward	10	7	7	6	10	13	1	7	5	8	8	4	16	1	14	7	9	8	3	5	5	14	3	16	91	96	187
Bostock Street	...	1	...	3	...	2	...	1	...	1	...	...	1	1	1	1	...	1	...	1	...	...	2	1	4	13	17
Boston Street	...	...	...		...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3	3
Boswell Street	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3
Bowles Street	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	1	1
Brasenose Road, with Leslie's Buildings	2	...	...	...	1	...	1	...	...	...	2	...	...	2	1	...	2	...	1	...	...	...	2	2	12	4	16
Breeze Hill	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Bridge Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brook Road	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	2
Brookhill Road	...	...	...	...	3	...	...	3	...	...	1	1	3	...	1	1	1	...	2	...	...	...	...	2	11	7	18
Browne Street	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	2
Browning Street	...	...	...	1	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	4
Bullen's Terrace	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Bulwer Street	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	...	...	1	5	1	6
Burns Street	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	3	1	4
Byron Street	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	3
Cambridge Road	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	2	3	5
Camden Street	...	...	...	...	1	1	2	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	4	2	6
Campbell Street	...	...	1	...	1	...	...	1	...	...	1	...	...	...	2	...	...	...	...	...	1	...	1	...	7	1	8
Canal Street and View	1	2	1	3	...	...	...	...	...	...	1	2	1	1	...	1	2	1	...	1	...	...	...	...	6	11	17
Carolina Street	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	2
Cedar Street	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	2	2	4
Chapel Street	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	1	3	4
Chaucer Street	...	...	...	2	...	1	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	1	5	6
Chesnut Grove	...	1	...	...	...	1	...	...	1	1	1	2	1	...	1	...	...	...	...	...	...	1	2	1	6	7	13
Church View	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	3	...	3
Church St., Knowsley Wd.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Church St., Stanley Wd.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	1	2	3
Clare Road	...	...	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	1	3
Carried forward	16	11	11	17	21	26	5	15	9	11	15	10	24	7	23	10	16	13	8	8	10	18	10	29	168	175	343

1899.

LOCALITIES.	JAN.		FEB.		MAR		APRIL.		MAY.		JUNE		JULY		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
	Un-der 5	5 and up.																							Un-der 5	5 and up.	
Brought forward	16	11	11	17	21	26	5	15	9	11	15	10	24	7	23	10	16	13	8	8	10	18	10	29	168	175	=343
Clifford Street	...	...	...	1	1	1	...	...	2	...	1	1	1	...	...	1	2	1	...	...	...	...	1	2	8	7	15
Coleridge Street	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	3	3
College View	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...
Concord Place	...	1	..	...	...	...	..	..	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	1	1
Conway Street	...	...	...	...	...	...	...	...	...	...	1	1	3	...	...	...	2	...	...	...	...	...	..	...	6	1	7
Cornwall Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1
Cowper Street	...	...	...	...	1	...	...	..	...	1	...	..	2	...	...	...	...	...	...	...	...	1	...	...	3	2	5
Cranworth Street ...	...	...	...	...	...	..	...	...	...	..	...	...	..	...	...	1	1	...	...	...	...	...	...	...	1	1	2
Crete Street	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	1	...	1	1
Croxteth Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	1	...	...	...	...	...	...	...	1	...	1
Cyprus Road	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	2	2
Davies Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Delaware Street	...	1	...	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	..	...	1	...	1	4	5
Denbigh Street	...	..	...	...	...	2	...	...	1	...	...	...	1	..	2	...	...	...	...	...	...	...	...	1	4	3	7
Derby Rd., Stanley Wd.	1	1	...	1	1	1	...	2	...	...	...	...	4	1	2	1	...	1	...	2	...	...	1	1	9	11	20
Derby Road, Knowsley Ward	..	...	...	1	..	...	...	...	...	...	...	1	...	..	...	...	...	...	1	...	...	..	...	...	1	2	3
Devon Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
Dorset Street	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1
Downing Road	1	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	3	1	4
Drake Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dryden Street	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	..	...	...	..	..	2	1	3
Duncan Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	.	...	...
Dundas Street	...	...	...	1	1	...	.	...	..	...	...	...		...	...	...	...	1	...	...	...	...	...	...	1	2	3
Effingham Street ...	...	1	...	...	...	...	...	...	...	...	...	...	1	..	...	...	...	...	...	...	...	...	...	...	1	1	2
Elizabeth Street ...	..	...	...	...	..	...	...	...	...	...	...	...	..	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Elm Street	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Emley Street	2	...	...	...	1	...	...	1	...	...	...	...	...	...	...	..	1	...	...	...	..	2	...	...	4	3	7
Carried forward	20	15	11	24	27	30	5	18	13	12	18	15	37	9	27	13	25	17	10	13	10	22	13	31	216	222	=438

1899.

Localities.	Jan.		Feb.		Mar.		April		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.		
	Under 5	5 and up.																							Under 5	5 and up.	
Brought forward	20	15	11	24	27	30	5	18	13	12	18	15	37	9	27	13	25	17	10	13	10	22	13	34	216	222	=438
Ensor Street and Place..	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	1	3
Essex Street	...	...	2	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	1	...	...	1	6	1	7
Everton View	...	...	..	...	...	...	..	...	...	...	...	...	...	...	...	..	...	...	..	...	...	...	...	...	...	...	.
Exeter Road	...	...	..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Falconer Street	...	...	...	...	...	...	..	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	..	...	..
Fernhill Road	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...
Flint Street	...	...	...	...	...	...	...	...	1	..	...	...	1	...	...	...	...	...	1	...	...	1	...	...	3	1	4
Florida Street	...	...	..	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1		1
Formby Place	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Garden Lane	..	...	...	...	..	...	...	...	...	...	1	...	..	...	...	...	...	...	...	...	..	...	...	1	1	1	2
Garfield Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	..	1
Gloucester Road... ...	...	...	...	...	...	...	..	...	1	.	...	...	1	...	2	1	1	...	...	...	...	...	...	...	5	1	6
Gonville Road	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	1	...	3	3
Gower Street	...	...	..	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	2	1	3
Gray Street	...	...	1	...	..	...	...	...	1	...	...	...	...	...	1	3	...	...	...	3	...	...	...	...	3	6	9
Grimshaw Street... ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	1	...	1
Grove Street	...	1	...	..	...	...	...	...	...	...	...	...	...	..	...	...	...	1	...	...	...	...	...	...	...	2	2
Hamlet Street	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	2	3
Hawthorne Road, Stanley Ward	...	..	...	..	...	...	...	...	...	...	..	...	...	..	...	...	...	..	...	...	...	...	...	...	...	...	...
Hawthorne Road, Derby Ward	..	2	...	1	1	2	...	3	1	1	...	...	2	4	2	...	...	1	...	...	...	1	1	1	7	16	23
Hemer Terrace and Place	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	2
Henry Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hertford Road		...	...	...	...	...	...	...	...	...	...	1	...	...	..	...	...	1	...	...	...	...	...	1	...	3	3
Hero Street	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	3	...	3
Holly Street	...	..	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Holywell Street	...	...	1	...	1	...	1	...	...	...	...	1	...	1	4	1	...	..	...	...	1	...	...	...	8	3	11
Carried forward	21	19	16	27	29	32	6	23	18	14	21	17	41	14	42	18	27	21	12	16	13	25	16	39	262	265	527

1899.

LOCALITIES.	JAN		FEB.		MAR.		APRIL.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
																									Under 5	5 and up.	
Brought forward	21	19	16	27	29	32	6	23	18	14	21	17	41	14	42	18	27	21	12	16	13	25	16	39	262	265	=527
Hood Street	1	...	1	...	...	...	...	1	1	...	...	...	...	...	1	...	1	1	.	...	...	1	1	...	6	3	9
Hooton Place	...	...	...	...	...	...	1	...	...	...	...	..	...	...	1	...	..	...	...	...	...	...	...	...	2	...	2
Hornby Boulevard ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	..	...	...
Hornby Road and Avenue	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	1	2
Hornby Dock Cottages...	...	...	...	...	...	...	. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospital (B. Borough) ..	1	6	1	2	1	4	...	4	1	3	1	9	...	6	...	4	1	4	1	9	...	4	1	6	8	61	69
,, (C. Infectious)...	2	...	...	1	...	...	1	4	2	1	...	...	2	1	...	...	...	3	...	3	...	3	1	3	8	19	27
Howe Street	...	...	1	1	...	...	...	1	...	1	2	...	...	...	1	...	...	...	...	1	1	...	...	...	5	4	9
Irlam Road, Stanley Ward	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1
Irlam Rd., Knowsley Wd	...	...	...	2	...	...	1	...	1	1	...	...	...	...	..	...	...	1	...	...	1	...	1	...	4	4	8
Ivanhoe Street	...	...	...	...	...	...	...	...	...	...	. .	...	...	...	...	...	...	...	1	...	...	...	1	...	2	...	2
Jersey Street	...	...	...	...	. .	...	...	...	...	...	...	...	...	..	...	...	1	...	1	...	...	...	...	...	2	...	2
Johnstone Street... ...	...	...	1	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	1	...	1	1	4	3	7
Keats Street	1	...	2	...	1	...	...	...	...	...	...	1	1	...	...	...	1	...	1	1	...	...	...	...	7	2	9
Keble Road	...	...	...	...	1	2	...	1	...	...	...	...	1	2	...	...	...	...	1	...	...	...	...	2	3	7	10
Kenilworth Street ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Kent Street	...	...	..	...	1	3	...	...	...	...	..	...	...	..	...	...	...	...	...	1	...	...	...	...	1	4	5
Keppel Street	...	...	...	...	...	...	...	...	...	...	...	. .	...	...	...	...	..	...	...	...	...	..	...	...	...	...	...
Kings Road	...	...	...	...	...	1	...	...	...	...	...	1	..	...	...	1	1	1	...	...	...	...	...	1	1	5	6
Kirby Place	1	...	...	...	...	...	...	...	...	.	...	...	...	...	...	...	...	..	...	...	...	...	...	...	1	...	1
Knowsley Road	...	..	...	...	...	2	...	...	..	...	...	...	...	...	1	...	...	...	...	...	..	...	...	1	1	3	4
Laburnum Place	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	2	1	3
Lamb's Terrace	. .	...	...	...	..	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	..	...	...	...	...
Langdale Street	...	2	...	...	...	...	...	...	...	...	...	..	..	...	...	...	...	...	...	..	...	...	...	...	...	2	2
Langton Dock Cottages	...	...	...	...	..	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Linacre Lane and Village	..	1	...	...	..	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	..	...	...	2	1	3
Lincoln Street	...	...	...	..	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	2	1	3
Carried forward	27	30	23	33	33	44	10	34	24	21	25	29	47	23	47	23	33	32	17	31	16	33	22	55	324	388	712

1899.

LOCALITIES	JAN.		FEB.		MAR		APRIL.		MAY.		JUNE		JULY.		AUG		SEP		OCT.		NOV.		DEC.		TOTAL.		
	Under 5	5 and up																							Under 5	5 and up.	
Brought forward	27	30	23	33	33	44	10	34	24	21	25	29	47	23	47	23	33	32	17	31	16	33	22	55	324	388	—712
Litherland Road.. ..	..	1	1	..	..	..	..	1	..	1	..	..	1	..	..	3	..	..	..	3	..	..	1	..	3	9	12
Lyons Street	..	2	..	2	1	..	..	1	..	2	1	1	1	..	1	..	4	..	..	..	1	..	1	..	10	8	18
Malcolm Street	..	..	..	1	..	1	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	3	2	5
Malta Road	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	4	4
Mann Street	..	..	1	..	1	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	2	..	5	2	7
Markfield Road	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Marsh Lane, Derby Wd.	..	1	..	..	1		..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Marsh Lane, Knowsley Ward	..	2	1	..	1	1	..	..	..	..	..	1	..	1	..	..	1	..	..	3	1	1	..	..	4	9	13
Marsh View	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Matthew Street	..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	1	..	4	2	6
May Street	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	2	..	2
Merton Road, Derby Wd	..	1	..	1	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	1	5	6
Merton Road, Knowsley Ward	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Merton Road, Stanley Ward	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Merton Grove	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mildmay Road	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	1	2
Mill Lane	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	1	..	4	1	5
Miller's Bridge with Balliol Terrace..	1	..	..	1	..	1	1	..	1	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	5	3	8
Milton Street	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	1	..	..	..	..	..	1	3	4
Miranda Road	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	2	3	5
Molyneux Street.. ..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	2	3	5
Moore Street	1	1	2	..	..	..	..	..	..	..	..	..	2	..	1	..	1	..	..	..	..	..	..	..	7	1	8
Morningside Road ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2	2
Mortuary	..	1	..	1	..	..	..	1	2	..	..	1	..	2	..	3	..	..	..	2	..	..	..	3	2	14	16
Nevada Street	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
New Street	..	..	1	1	..	..	..	..	..	1	..	..	1	..	1	..	1	..	1	..	..	..	1	..	6	2	8
Carried forward	30	39	31	43	37	49	12	38	27	28	29	37	56	28	54	32	42	35	21	41	20	34	29	63	388	467	—855

1899.

LOCALITIES.	JAN.		FEB.		MAR.		APRIL.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL,		
	Under 5	5 and up.																							Under 5	5 and up.	
Brought forward	30	39	31	43	37	49	12	38	27	28	29	37	56	28	54	32	42	35	21	41	20	34	29	63	388	467	=855
Norfolk Street	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	2	1	3
Oak Street	..	..	1	..	..		..	..	..	..	..	..	..	..	..	..	..	..	...	..	1	1	..	..	2	1	3
Olivia Street	..	2	1	3	..	1	..	1	..	2	...	...	1	...	2	1	2	1	...	..	..	2	1	..	7	13	20
Oregon Street	..	..	..	..	..	1	..	..	1	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	3	2	5
Orlando Street	..	..	1	1	..	..	1	2	1	..	..	..	1	..	3	..	..	..	..	1	..	..	..	1	7	5	12
Oriel Road	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Oxford Road	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Park St., Place & Grove	..	..	..	1	..	..	..	1	..	..	..	..	..	1	1	1	..	..	..	1	1	..	..	1	2	6	8
Peel Road..	..	..	..	2	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2	4	6
Pembroke Road	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Percy Street	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	1	2	3
Pine Grove	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2	..	2
Pleasant Grove	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	..	1	..	..	1	..	..	..	..	3	2	5
Pleasant Place with Cross Street and Place ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Pleasant View	..	..	..	..	..	..	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	3	1	4
Pope Street	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Princes Street	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queen's Road	..	..	..	2	1	..	..	..	..	..	..	..	..	1	..	1	..	2	..	..	..	1	..	1	1	8	9
Raleigh Street	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	2
Recreation Street ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Regent Road, Stanley Ward	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	3	3
Regent Road, Knowsley Ward	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rhyl Street	..	..	..	1	..	..	..	1	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	1	4	5
Richmond Grove.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rimrose Road	..	..	..	1	1	2	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	1	2	6	8
Carried forward	30	41	37	54	39	53	17	46	31	31	30	39	63	32	61	37	46	41	24	46	22	38	31	67	431	528	—959

1899.

Localities.	Jan.		Feb		Mar.		April.		May.		June.		July.		Aug.		Sept		Oct.		Nov.		Dec.		Total.		
	Under 5	5 and up																							Under 5	5 and up.	
Brought forward	30	44	37	54	39	53	17	46	31	31	30	39	63	32	61	37	46	41	24	46	22	38	31	67	431	528	—959
Roby Street	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sandfield Place	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St Alban's Road.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Alban's Square ..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Catherine's Road ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	2
St. Edmond's Road ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	.	..	1	..	3	3
St John's Road and Terrace	..	2	..	..	2	..	1	1	..	2	1	1	..	1	..	1	..	2	..	1	1	..	..	..	5	11	16
Sandy Lane with Cross View and Place ..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Salisbury Road	..	..	..	..	..	1	1	2	1	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	4	4	8
Scott Street	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	1	..	..	..	..	..	..	1	3	4
Seaview Road	..	..	..	1	..	..	..	..	..	..	..	1	3	..	..	..	1	..	..	..	..	..	..	..	4	2	6
Seaforth Street	2	..	..	2	1	1	1	..	..	..	..	1	..	..	1	1	..	..	..	..	..	1	..	..	5	6	11
Sheridan Place with Lee's Terrace ..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	1	..	..	..	1	..	5	2	7
Shelley Street	..	..	..	1	..	1	..	2	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	1	3	5	8
Sidney Road	..	2	..	..	1		..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	2	4
Smyrna Road	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southey Street	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	..	..	..	..	2	1	3
Speke Place	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Spring Grove	..	1	..	..	..	..	..	..	1	..	1	..	1	..	1	..	1	..	..	..	..	..	..	2	5	3	8
Stafford Street	..	..	..	..	..	..	1	1	..	..	..	..	3	..	..	1	1	..	..	..	1	..	..	..	6	2	8
Stanley Road, Derby Ward	...	..	..	...	...	...	...	..	..	...	...	...	...	1	3	...	...	...	...	...	...	1	...	...	3	2	5
Stanley Road, Knowsley Ward	...	1	...	...	..	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Stanley Road, Stanley Ward	...	1	..	1	...	1	...	1	...	1	...	...	1	...	...	...	...	2	...	1	..	1	..	2	1	11	12
Strand Road, Derby Wd.	...	...	2	...	...	1	1	..	...	...	...	1	...	...	1	...	...	1	1	2	...	...	...	...	5	5	10
Strand Road, Knowsley Ward	...	1	...	...	...	1	...	...	...	1	...	...	...	2	...	1	...	...	..	...	...	...	...	1	...	7	7
Seymour Street	..	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	..	...	...	...	...	...	...	...	1	1	2
Carried forward	34	53	39	59	43	60	22	53	33	36	34	46	74	37	72	42	53	48	26	50	24	43	32	74	486	601	—1087

1899.

LOCALITIES.	JAN.		FEB.		MAR.		APRIL.		MAY		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
	Under 5	5 and up.																							Under 5	5 and up.	
Brought forward	34	53	39	59	43	60	22	53	33	26	34	46	74	37	72	42	53	48	26	50	24	43	32	74	486	601	=1087
Suffolk Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Summerseat	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	2
Surrey Street	...	...	...	...	...	...	...	1	...	...	1	2	1	...	...	...	...	...	...	...	...	...	1	...	3	3	6
Sussex Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Talbot Street	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	2	3
Tattersall Place	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tennyson Street	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3		3
Trinity Road	1	...	1	2	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	4	6
Tudno Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1
Tudor Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thornton Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...		...	...	...	...	...	1	1
University Road	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Ursula Street	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	3	3
Vermont Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	1	1	2
Viola Street	...	...	...	1	1	1	...	...	...	1	...	1	2	...	...	1	...	...	...	1	...	...	1	...	4	6	10
Virginia Street	...	...	1	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	1	3	3	6
Wadham Road	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	3	3
Washington Street ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	2	...	2
Waterworks Street ...	...	...	1	1	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	2	5	7
Waverley Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wm. Henry Street, with 1st and 2nd streets	1	...	1	2	...	...	...	...	...	...	...	...	2	...	3	...	...	...	...	...	...	1	...	...	7	3	10
Windsor Place	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Worcester Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	1	2	3
Wordsworth Street ...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	2
York Street	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	1	4	5
Total	37	54	45	67	45	63	23	57	33	41	35	50	81	37	79	45	55	52	28	54	25	46	34	78	520	644	1164